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INSTRUMENT APPROACH PROCEDURE CHARTS

IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non precision approaches are 800-2 (NDB, VOR, LOC, TACAN, LDA, VORTAC, VOR/DME, ASR or WAAS LNAV); for precision approaches 600-2 (ILS or PAR). Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility or absence of weather reporting service. Civil pilots see FAR 91. IFR Alternate Airport Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Airport Minimums Notes for alternate airfield suitability.

NAME	ALTERNATE MINIMUMS
ABERDEEN, SD	
ABERDEEN RGNL	**RNAV (GPS) Rwy 13**
	RNAV (GPS) Rwy 31
	RNAV (GPS) Rwy 35
	VOR Rwy 31
	VOR/DME Rwy 13
NA when local weather not available.	
ALBERT LEA, MN	
ALBERT LEA MUNI	**RNAV (GPS) Rwy 16**
NA when local weather not available.	
ALEXANDRIA, MN	
CHANDLER FIELD	**RNAV (GPS) Rwy 22**
	RNAV (GPS) Rwy 31
NA when local weather not available.	
AUSTIN, MN	
AUSTIN MUNI	**RNAV (GPS) Rwy 17**
	RNAV (GPS) Rwy 35
	VOR/DME-A
NA when local weather not available.	
BAUDETTE, MN	
BAUDETTE INTL	**RNAV (GPS) Rwy 12**[1]
	RNAV (GPS) Rwy 30[1]
	VOR/DME Rwy 12
	VOR Rwy 30
Category C, 800-2¼; Category D, 800-2½.	
[1]NA when local weather not available.	
BEMIDJI, MN	
BEMIDJI RGNL	**RNAV (GPS) Rwy 13**
	RNAV (GPS) Rwy 25
	RNAV (GPS) Rwy 31
NA when local weather not available.	
BENSON, MN	
BENSON MUNI	**RNAV (GPS) Rwy 14**
	RNAV (GPS) Rwy 32
NA when local weather not available.	
BISMARCK, ND	
BISMARCK MUNI	**ILS Rwy 13**[1,2]
	ILS Rwy 31[1,2]
	RADAR-1[3]
[1]ILS, Category D, 800-2½; Category E, 900-3. LOC, NA.	
[2]NA when control tower not in operation.	
[3]NA when control tower closed.	
BRAINERD, MN	
BRAINERD LAKES RGNL	**ILS or LOC Rwy 23**
	RNAV (GPS) Rwy 12
	RNAV (GPS) Rwy 23
	RNAV (GPS) Rwy 30
	RNAV (GPS) Rwy 34
NA when local weather not available.	
BROOKINGS, SD	
BROOKINGS RGNL	**RNAV (GPS) Rwy 12**
	RNAV (GPS) Rwy 30
NA when local weather not available.	
CANBY, MN	
MYERS FIELD	**RNAV (GPS) Rwy 12**
	RNAV (GPS) Rwy 30
NA when local weather not available.	
CLOQUET, MN	
CLOQUET CARLTON COUNTY	**RNAV (GPS) Rwy 35**
NA when local weather not available.	
COOK, MN	
COOK MUNI	**RNAV (GPS) Rwy 31**
NA when local weather not available.	
CROOKSTON, MN	
CROOKSTON MUNI-KIRKWOOD FIELD	**RNAV (GPS) Rwy 13**[1]
	RNAV (GPS) Rwy 31[1]
	VOR Rwy 31[2]
[1]NA when local weather not available.	
[2]Category A,B, 900-2; Category C, 900-2¼.	

NAME ALTERNATE MINIMUMS

DETROIT LAKES, MN

DETROIT LAKES-WETHING FIELD **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
NA when local weather not available.
Category D, 800-2¼.

DEVILS LAKE, ND

DEVILS LAKE RGNL **RNAV (GPS) Rwy 3**
RNAV (GPS) Rwy 13
RNAV (GPS) Rwy 21
RNAV (GPS) Rwy 31
VOR Rwy 3[1]
VOR Rwy 21[2]
NA when local weather not available.
[1]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[2]Category C, 800-2¼, Category D, 800-2½.

DICKINSON, ND

DICKINSON-THEODORE ROOSEVELT RGNL **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32
VOR-A
NA when local weather not available.

DODGE CENTER, MN

DODGE CENTER **RNAV (GPS) Rwy 16**
RNAV (GPS) Rwy 34
VOR-A
NA when local weather not available.

DULUTH, MN

DULUTH INTL **COPTER ILS Rwy 9[1]**
ILS or LOC Rwy 9[2]
ILS or LOC Rwy 27[3]
VOR or TACAN Rwy 3[4]
[1]LOC, NA.
[2]ILS, Category E, 900-2½; LOC, Category E, 800-2½.
[3]ILS, Category E, 700-2¼; LOC, Category E, 800-2¼.
[4]Category E, 800-2¼.

EVELETH, MN

EVELETH-VIRGINIA MUNI **VOR/DME or GPS-A**
Category C, 800-2¼; Category D,800-2½.

FAIRMONT, MN

FAIRMONT MUNI **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
VOR Rwy 13
VOR Rwy 31
NA when local weather not available.

NAME ALTERNATE MINIMUMS

FARGO, ND

HECTOR INTL **ILS or LOC Rwy 18[1]**
ILS or LOC Rwy 36[1]
RNAV (GPS) Rwy 18[2]
RNAV (GPS) Rwy 36[2]
VOR/DME or TACAN Rwy 18[2]
VOR or TACAN Rwy 36[3]
[1]ILS, Category E, 700-2¼. LOC, Category E, 800-2¼.
[2]Category E, 800-2¼.
[3]Category D, 800-2¼, Category E, 800-2½.

FERGUS FALLS, MN

FERGUS FALLS MUNI-EINAR MICKELSON FIELD **ILS or LOC Rwy 31[1]**
NDB Rwy 31[2]
RNAV (GPS) Rwy 31[2]
RNAV (GPS) Rwy 35
NA when local weather not available.
[1]ILS, Category D, 700-2¼. LOC, Category D, 800-2¼.
[2]Category D, 800-2¼.

GLENCOE, MN

GLENCOE MUNI **RNAV (GPS) Rwy 31**
NA when local weather not available.

GRAND FORKS, ND

GRAND FORKS INTL ... **ILS or LOC Rwy 35L[12]**
LOC BC Rwy 17R[13]
RNAV (GPS) Rwy 9L[3]
RNAV (GPS) Rwy 17R[3]
RNAV (GPS) Rwy 27R[3]
RNAV (GPS) Rwy 35L[3]
VOR Rwy 17R[3]
VOR Rwy 35L[3]
[1]NA when control tower closed.
[2]ILS, Category E, 700-2½. LOC, Category E, 800-2½.
[3]NA when local weather not available.

GRAND MARAIS, MN

GRAND MARAIS/COOK COUNTY **RNAV (GPS) Rwy 27**
NA when local weather not available.

GRAND RAPIDS, MN

GRAND RAPIDS/ITASCA CO-GORDON NEWSTROM **RNAV (GPS) Rwy 16**
RNAV (GPS) Rwy 34
VOR Rwy 34
NA when local weather not available.

GRANITE FALLS, MN

GRANITE FALLS MUNI/LENZEN-ROE MEMORIAL FIELD **RNAV (GPS) Rwy 33**
NA when local weather not available.

NAME — ALTERNATE MINIMUMS

HETTINGER, ND
HETTINGER MUNI **RNAV (GPS) Rwy 30**
NA when local weather not available.
Category D, 800-2¼.

HIBBING, MN
RANGE RGNL **ILS OR LOC/DME Rwy 13**[1]
VOR Rwy 13[2]
[1]ILS,Categories A,B,C,D, 800-2.
[2]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾; ILS, 700-2.

HURON, SD
HURON RGNL **ILS or LOC Rwy 12**[12]
LOC/DME BC Rwy 30[23]
RNAV (GPS) Rwy 12[23]
RNAV (GPS) Rwy 30[23]
VOR Rwy 12[23]
[1]ILS, Category D, 700-2¼. LOC, Category D, 800-2¼.
[2]NA when local weather not available.
[3]Category D, 800-2¼.

INTERNATIONAL FALLS, MN
FALLS INTL **COPTER ILS or LOC Rwy 31**[1]
ILS or LOC/DME Rwy 13,700-2[2]
ILS or LOC Rwy 31[2]
RNAV (GPS) Rwy 13[2]
RNAV (GPS) Rwy 31[2]
VOR Rwy 13[23]
VOR/DME Rwy 31[2]
[1]LOC, NA; ILS, NA when local weather not available.
[2]NA when local weather not available.
[3]Category D, 800-2¼.

JACKSON, MN
JACKSON MUNI **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
NDB Rwy 13
NA when local weather not available.

JAMESTOWN, ND
JAMESTOWN RGNL **RNAV (GPS) Rwy 4**
RNAV (GPS) Rwy 13
RNAV (GPS) Rwy 22
RNAV (GPS) Rwy 31
VOR Rwy 31
NA when local weather not available.

LANGDON, ND
ROBERTSON FIELD **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32
NA when local weather not available.

NAME — ALTERNATE MINIMUMS

MANKATO, MN
MANKATO RGNL **RNAV (GPS) Rwy 4**
RNAV (GPS) Rwy 15
RNAV (GPS) Rwy 22
RNAV (GPS) Rwy 33
VOR Rwy 15
VOR Rwy 33
NA when local weather not available.

MAPLE LAKE, MN
MAPLE LAKE MUNI **VOR-A**
NA when local weather not available.

MARSHALL, MN
SOUTHWEST MINNESOTA RGNL MARSHALL/ RYAN FLD **RNAV (GPS) Rwy 12**
VOR Rwy 12
NA when local weather not available.

MINNEAPOLIS, MN
AIRLAKE **VOR Rwy 12**
NA when local weather not available.
Category D, 800-2¼.

ANOKA COUNTY-BLAINE ARPT
(JANES FIELD) **ILS or LOC/DME Rwy 27**
RNAV (GPS) Rwy 9
RNAV (GPS) Rwy 18
RNAV (GPS) Rwy 27
VOR Rwy 9
VOR/DME Rwy 27
NA when local weather not available.

CRYSTAL **RNAV (GPS) Rwy 14L**
NA when local weather not available.

FLYING
CLOUD **COPTER ILS or LOC Rwy 10R**[1]
ILS or LOC Rwy 10R[1]
RNAV (GPS) Rwy 10L
RNAV (GPS) Rwy 28R
VOR Rwy 10R
VOR/DME Rwy 36
NA when local weather not available.
[1]NA when control tower closed.

NAME ALTERNATE MINIMUMS

MINNEAPOLIS, MN (CON'T)

MINNEAPOLIS-ST. PAUL INTL/ WOLD CHAMBERLAIN **ILS Rwy 4[1]**
ILS or LOC Rwy 12L[2]
ILS or LOC Rwy 12R[1]
ILS or LOC Rwy 30L[1]
ILS or LOC Rwy 30R[2]
ILS or LOC Rwy 35[3]
LOC Rwy 4[4]
LOC Rwy 22[4]
RNAV (GPS) Rwy 4[4]
RNAV (GPS) Rwy 12L[5]
RNAV (GPS) Rwy 12R[4]
RNAV (GPS) Rwy 22[4]
RNAV (GPS) Rwy 30L[4]
RNAV (GPS) Rwy 30R[4]
RNAV (GPS) Z Rwy 35[6]

[1]ILS, Category D, 700-2; Category E, 900-3. LOC, Category E, 900-3.
[2]ILS, Categories A, B, C, 700-2; Category D, 700-2¼; Category E, 900-3. LOC, Category D, 800-2¼; Category E, 900-3.
[3]ILS, Categories A, B, 800-2; Category C, 800-2¼; Category D, 800-2½; Category E, 900-3. LOC, Category C, 800-2¼; Category D, 800-2½; Category E, 900-3.
[4]Category E, 900-3.
[5]Category D, 800-2¼; Cateogry E, 900-3.
[6]Category D, 800-2¼.

MINOT, ND

MINOT INTL **ILS or LOC Rwy 31[12]**
LOC/DME BC Rwy 13[1]
RNAV (GPS) Rwy 8
RNAV (GPS) Rwy 13
RNAV (GPS) Rwy 26
RNAV (GPS) Rwy 31
VOR Rwy 8[3]
VOR Rwy 26[4]

NA when local weather not available.
[1]NA when tower closed.
[2]Category E, 1100-3.
[3]Categories A, B, 1100-2; Categories C, D, 1100-3.
[4]Categories A,B, 900-2; Category C,900-2½; Category D,900-2¾.

MITCHELL, SD

MITCHELL MUNI **RNAV (GPS) Rwy 12**
RNAV (GPS) Rwy 30
VOR Rwy 12
VOR Rwy 30[1]

NA when local weather not available.
[1]Categories A,B, 1000-2; Categories C,D, 1000-3.

NAME ALTERNATE MINIMUMS

MOBRIDGE, SD

MOBRIDGE MUNI **RNAV (GPS) Rwy 12[1]**
RNAV (GPS) Rwy 30[2]

NA when local weather not available
[1]Category D, 900-2¾.
[2]Category C, 800-2¼; Category D, 900-2¾.

MORRIS, MN

MORRIS MUNI-CHARLIE SCHMIDT FLD **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32

NA when local weather not available.

PINE RIDGE, SD

PINE RIDGE **RNAV (GPS) Rwy 30**

NA when local weather not available.
Categories A,B, 900-2.

PIPESTONE, MN

PIPESTONE MUNI **NDB Rwy 36**
RNAV (GPS) Rwy 18
RNAV (GPS) Rwy 36

NA when local weather not available.

PRESTON, MN

FILLMORE COUNTY **RNAV (GPS) Rwy 29**

NA when local weather not available.

RAPID CITY, SD

RAPID CITY RGNL **ILS or LOC Rwy 32[1]**
RNAV (GPS) Rwy 14[2]
RNAV (GPS) Rwy 32[2]
VOR or TACAN Rwy 14[2]
VOR or TACAN Rwy 32[2]

NA when local weather not available.
[1]ILS, Category D, 700-2; Category E, 800-2¾. LOC, Category E, 800-2¾.
[2]Category E, 800-2¼.

RED WING, MN

RED WING RGNL **RNAV (GPS) Rwy 27**

NA when local weather not available.
Categories A, B, 1100-2; Category C, 1100-3.

REDWOOD FALLS, MN

REDWOOD FALLS MUNI **RNAV (GPS) Rwy 30**
VOR-A

Category D, 800-2¼.
NA when local weather not available.

ROCHESTER, MN

ROCHESTER INTL **ILS or LOC Rwy 13**
ILS or LOC Rwy 31
COPTER ILS or LOC Rwy 31

NA when control tower closed.

NAME ALTERNATE MINIMUMS

ROSEAU, MN

ROSEAU MUNI/
RUDY BILLBERG FIELD . **RNAV (GPS) Rwy 16**
RNAV (GPS) Rwy 34
NA when local weather not available.

ST. CLOUD, MN

ST. CLOUD RGNL . **ILS or LOC/DME Rwy 13[123]**
RNAV (GPS) Rwy 5[1]
RNAV (GPS) Rwy 13[1]
RNAV (GPS) Rwy 23[1]
RNAV (GPS) Rwy 31[1]
VOR/DME Rwy 13[12]
VOR Rwy 31[12]
[1]NA when local weather not available.
[2]NA when control tower closed.
[3]ILS,Categories, A, B, C, D, 700-2.

ST. PAUL, MN

ST. PAUL DOWNTOWN HOLMAN
FIELD **ILS or LOC Rwy 14[12]**
ILS or LOC Rwy 32[13]
RNAV (GPS) Rwy 14[3]
RNAV (GPS) Rwy 32[4]
[1]NA when local weather not available.
[2]ILS,LOC, Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[3]Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[4]Categories A,B,C, 900-2½; Category D, 900-2¾.

SIOUX FALLS, SD

JOE FOSS FIELD **ILS Rwy 3[12]**
ILS Rwy 21[1]
RADAR-1[3]
VOR or TACAN Rwy 15[4]
VOR/DME or TACAN Rwy 33[3]
[1]NA when control tower closed.
[2]LOC, NA.
[3]Category E, 800-2¾.
[4]Category E, 900-3.

SOUTH ST. PAUL, MN

SOUTH ST. PAUL MUNI-RICHARD E
FLEMING FIELD **RNAV (GPS) Rwy 34**
Category D, 800-2¼.
NA when local weather not available.

THIEF RIVER FALLS, MN

THIEF RIVER
FALLS RGNL **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
VOR Rwy 13
NA when local weather not available.

NAME ALTERNATE MINIMUMS

VERMILLION, SD

HAROLD DAVIDSON
FIELD **RNAV (GPS) Rwy 30**
NA when local weather not available.

WARROAD, MN

WARROAD INTL
MEMORIAL **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
NA when local weather not available.

WASECA, MN

WASECA MUNI **RNAV (GPS) Rwy 15**
NA when local weather not available.

WATERTOWN, SD

WATERTOWN RGNL **LOC/DME BC Rwy 17**
NDB Rwy 35
RNAV (GPS) Rwy 12
RNAV (GPS) Rwy 17
RNAV (GPS) Rwy 30
RNAV (GPS) Rwy 35
VOR or TACAN Rwy 17
NA when local weather not available.

WILLISTON, ND

SLOULIN FIELD INTL..... **VOR or GPS Rwy 11**
Category D, 800-2¼.

WILLMAR, MN

WILLMAR MUNI-JOHN
L RICE FIELD **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
VOR Rwy 13
VOR Rwy 31[1]
NA when local weather not available.
[1]Category D, 800-2¼.

WINDOM, MN

WINDOM MUNI **NDB Rwy 17**
Category C, 800-2¼.

WINNER, SD

WINNER RGNL **RNAV (GPS) Rwy 13**
RNAV (GPS) Rwy 31
VOR-A
NA when local weather not available.

WORTHINGTON, MN

WORTHINGTON
MUNI **VOR or GPS Rwy 11**
Category D, 800-2¼.

YANKTON, SD

CHAN GURNEY MUNI ... **RNAV (GPS) Rwy 13[1]**
VOR Rwy 13[1]
VOR Rwy 31[2]
[1]NA when local weather not available.

BISMARCK, ND

Amdt. 3A, DEC 13, 2002 (FAA) ELEV **1661**

BISMARCK MUNI

RADAR - 126.3 298.9

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	13		AB	**2100**-1	445	(500-1)	C	**2100**-1¼	445	(500-1¼)
			D	**2100**-1½	445	(500-1½)				
	31		AB	**2100**/24	455	(500-½)	C	**2100**/40	455	(500-¾)
			D	**2100**/50	455	(500-1)				
	21		AB	**2120**-1	459	(500-1)	C	**2120**-1¼	459	(500-1¼)
			D	**2120**-1½	459	(500-1½)				
	3		AB	**2120**-1	459	(500-1)	C	**2120**-1¼	459	(500-1¼)
			D	**2120**-1½	459	(500-1½)				
CIRCLING			A	**2180**-1	519	(600-1)	B	**2220**-1	539	(600-1)
			C	**2220**-1½	559	(600-1½)	D	**2240**-2	579	(600-2)

Inoperative table does not apply to MALS Rwy 13.

DULUTH, MN

Amdt. 20, OCT 7, 1999 (FAA) ELEV **1428**

DULUTH INTL

RADAR - 125.45 255.9

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	3		ABC	**1820**-1	400	(400-1)	D	**1820**-1¼	400	(400-1¼)
			E	**1820**-1½	400	(400-1½)				
	27		AB	**1860**/24	439	(500-½)	C	**1860**/40	439	(500-¾)
			DE	**1860**/50	439	(500-1)				
	21		AB	**1860**-1	440	(500-1)	C	**1860**-1¼	440	(500-1¼)
			DE	**1860**-1½	440	(500-1½)				
	9		AB	**1880**/24	452	(500-½)	C	**1880**/40	452	(500-¾)
			DE	**1880**/50	452	(500-1)				
CIRCLING			AB	**1920**-1	492	(500-1)	C	**1920**-1½	492	(500-1½)
			DE	**1980**-2	552	(600-2)				

Category E circling NA southeast of Rwys 3 and 27.

ELLSWORTH AFB (KRCA) (Rapid City), SD (Amdt 1, 08045 USAF) ELEV **3276**

RADAR - (E) 119.5 259.1[1]

	RWY	GS/TCH/RPI	CAT	DH/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	13[2]		AB	**3820**/40	544	(600-¾)
			C	**3820**/50	544	(600-1)
			D	**3820**/60	544	(600-1¼)
			E	**3820**-1½	544	(600-1½)
	31[2]		AB	**3820**/40	628	(600-¾)
			C	**3820**/60	628	(600-1¼)
			D	**3820**-1½	628	(600-1½)
			E	**3820**-1¾	628	(600-1¾)
CIR	All Rwy[3]		A	**3860**-1¼	584	(600-1¼)
			B	**3880**-1¼	604	(700-1¼)
			C	**3880**-1¾	604	(700-1¾)
			D	**3880**-2	604	(700-2)
			E	**4040**-2¾	764	(800-2¾)

[1]Opr 1300-0730Z++ Mon-Thu, 1300-0500Z++ Fri. 1400-0500Z++ Sat, Sun and hol. [2]When ALS inop, increase CAT AB RVR to 60 and vis to 1¼, increase CAT CDE vis ½ mile. [3]CAT E circling restricted to 28th BW aircraft only; 28th BW aircraft will remain within class D airspace.

MANDAN, ND Amdt. 4, NOV 09, 1995 (FAA) ELEV **1942**

MANDAN MUNI

RADAR - 126.3 298.9 ⚠ NA

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HAT/ HAA	CEIL-VIS
ASR	31		AB	**2360**-1	418	(500-1)	CD	**2360**-1¼	418	(500-1¼)
	13		AB	**2460**-1	520	(600-1)	C	**2460**-1½	520	(600-1½)
			D	**2460**-1¾	520	(600-1¾)				
CIRCLING			A	**2460**-1	518	(600-1)	B	**2500**-1	558	(600-1)
			C	**2500**-1½	558	(600-1½)	D	**2500**-2	558	(600-2)

Use Bismarck altimeter setting.
When Bismarck control tower closed, ASR NA.

ROCHESTER, MN

Amdt. 8, JAN 15, 2009 (FAA) ELEV **1317**

ROCHESTER INTL

RADAR - 119.8 251.125

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	2		ABC	**1680**-1	363	(400-1)	D	**1680**-1¼	363	(400-1¼)
	13		ABC	**1640**/24	360	(400-½)	D	**1640**/50	360	(400-1)
	20		ABC	**1660**-1	356	(400-1)	D	**1660**-1¼	356	(400-1¼)
	31		ABC	**1660**/24	356	(400-½)	D	**1660**/50	356	(400-1)
CIRCLING			A	**1720**-1	403	(500-1)	B	**1780**-1	463	(500-1)
			C	**1780**-1½	463	(500-1½)	D	**1880**-2	563	(600-2)

When control tower closed, procedure NA. For inoperative MALSR, increase S-13 and S-31 Cat D visibility to RVR 6000. Visibility reduction by helicopters NA Rwy 2-20.

SIOUX FALLS, SD

Amdt. 10A, OCT 3,2003 (FAA) ELEV **1429**

JOE FOSS FIELD

RADAR - 125.8 353.6 A

	RWY	GS/TCH/RPI	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS	CAT	DA/ MDA-VIS	HAT/ HATh/ HAA	CEIL-VIS
ASR	3		AB	**1940**/24	517	(600-½)	C	**1940**/50	517	(600-1)
			DE	**1940**/60	517	(600-1¼)				
	33		AB	**1920**-1	497	(500-1)	C	**1920**-1¼	497	(500-1¼)
			D	**1920**-1½	497	(500-1½)	E	**1920**-1¾	497	(500-1¾)
	21		AB	**1960**/24	531	(600-½)	C	**1960**/50	531	(600-1)
			D	**1960**/60	531	(600-1¼)	E	**1960**-1½	531	(600-1½)
	15		AB	**1960**-1	534	(600-1)	C	**1960**-1½	534	(600-1½)
			D	**1960**-1¾	534	(600-1¾)	E	**1960**-2	534	(600-2)
CIRCLING			AB	**1960**-1	531	(600-1)	C	**1960**-1½	531	(600-1½)
			D	**2040**-2	611	(700-2)	E	**2300**-3	871	(900-3)

When control tower closed, procedure not authorized.
Category E S-3 visibility increased 1¾ mile for inoperative MALSR.
Category E S-21 visibility increased to 2 miles for inoperative MALSR.

INSTRUCTION APPROACH PROCEDURE CHARTS

IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude , and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military take-off minima, refer to appropriate service directives.

NAME — TAKE-OFF MINIMUMS

ABERDEEN, SD

ABERDEEN RGNL (ABR)
ORIG 09239 (FAA)
NOTE: **Rwy 17,** trees 1138' from DER, 432' right of centerline, 41' AGL/1336' MSL. **Rwy 31,** multiple trees beginning 1391' from DER, 326' left of centerline, up to 65' AGL/1360' MSL.

AITKIN, MN

AITKIN MUNI-STEVE KURTZ FIELD (AIT)
AMDT 2 96172 (FAA)
TAKE-OFF MINIMUMS: **Rwys 8, 26,** 300-1. **Rwy 16,** 300-1 or std. with a min climb of 400' per NM to 1500.
DEPARTURE PROCEDURE: **Rwys 16, 26,** climb runway heading to 1700 before turning.

ALBERT LEA, MN

ALBERT LEA MUNI (AEL)
ORIG 85241 (FAA)
DEPARTURE PROCEDURE: **Rwys 16, 22,** climb runway heading to 1800 before turning on course.

ALEXANDRIA, MN

CHANDLER FIELD (AXN)
DEPARTURE PROCEDURE: **Rwys 4, 13, 22,** when weather is below 200-1, climb runway heading to 1800 before turning.

NAME — TAKE-OFF MINIMUMS

APPLETON, MN

APPLETON MUNI (AQP)
ORIG-A 10126 (FAA)
DEPARTURE PROCEDURE: **Rwy 4,** climb heading 039° to 2000 before turning right. **Rwy 13,** climb heading 130° to 2500 before turning right. **Rwy 22,** climb heading 219° to 2400 before turning left. **Rwy 31,** climb heading 300° to 2000 before turning left.
NOTE: **Rwy 13,** trees beginning 91' from DER, 464' left of centerline, up to 100' AGL/1134' MSL. Trees beginning 576' from DER, 388' right of centerline, up to 100' AGL/1120' MSL. Tower 2.3 NM from DER, 2.4 right of centerline, 1283' AGL/2318' MSL.

AUSTIN, MN

AUSTIN MUNI (AUM)
ORIG 08045 (FAA)
NOTE: **Rwy 17,** Multiple trees beginning 809' from departure end of runway, 663' right of centerline, up to 61' AGL/1285' MSL. **Rwy 35,** Tree 1380' from departure end of runway, 484' right of centerline, 100' AGL/1314' MSL.

BAUDETTE, MN
BAUDETTE INTL (BDE)
AMDT 1 10154 (FAA)
DEPARTURE PROCEDURE: **Rwy 12,** climb heading 117° to 1700 before turning northbound.
NOTE: **Rwy 12,** trees, pipes, and markers beginning 61' from DER, 354' right of centerline, up to 100' AGL/1184' MSL. Trees beginning 593' from DER, 138' left of centerline, up to 21' AGL/1100' MSL. Rod on OL tank 4132' from DER, 1233' right of centerline, 120' AGL/1204' MSL. **Rwy 30,** trees beginning 15' from DER, 348' right of centerline, 12' AGL/1096' MSL. Trees beginning 2036' from DER, 532' left of centerline, 64' AGL/1143' MSL.

BELLE FOURCHE, SD
BELLE FOURCHE MUNI (EFC)
AMDT 2 09015 (FAA)
TAKE-OFF MINIMUMS: **Rwys 18,36,** NA. **Rwy 14,** std. w/ min. climb of 240' per NM to 9000 or 1400-3 for climb in visual conditions. **Rwy 32,** std. w/ min. climb of 413' per NM to 3900.
DEPARTURE PROCEDURE: **Rwy 14,** for climb in visual conditions: cross Belle Fourche Muni airport at or above 4400 MSL before proceeding on course. **Rwy 32,** climb heading 321° to 3900 before proceeding southbound.
NOTE: **Rwy 14,** trees 651' from departure end of runway, 547' left of centerline, up to 20' AGL/3299' MSL. **Rwy 32,** trees 857' from departure end of runway, 150' left of centerline, up to 20' AGL/3199' MSL. Trees 3880' from departure end of runway, 966' right of centerline, up to 20' AGL/3289' MSL.

BEMIDJI, MN
BEMIDJI RGNL (BJI)
AMDT 3 08213 (FAA)
NOTE: **Rwy 7,** vegetation beginning 859' from departure end of runway, 544' right of centerline, up to 62' AGL/1442' MSL. Vegetation beginning 1404' from departure end of runway, 683' left of centerline, up to 44' AGL/1424' MSL. **Rwy 13,** vehicle on road, 541' from departure end of runway, 525' right of centerline, 15' AGL/1398' MSL. **Rwy 25,** poles beginning 1337' from departure end of runway, 205' right of ceterline up to 61' AGL/1445' MSL. Trees beginning 1414' from departure end of runway, 254' left of centerline, up to 57' AGL/1441' MSL. Tree 1406' from departure end of runway, 233' right of centerline, 53' AGL/1437' MSL.

BENSON, MN
BENSON MUNI (BBB)
AMDT 1 09127 (FAA)
NOTE: **Rwy 14,** numerous trees beginning 838' from DER, 246' right of centerline, up to 33' AGL/1087' MSL. Numerous trees beginning 1232' from DER, 64' left of centerline, up to 69' AGL/1108' MSL. Sign 206' from DER, 198' left of centerline, 19' AGL/1044' MSL. Tower 4884' from DER, 274' right of centerline, 126' AGL/1161' MSL. **Rwy 32,** Tree 2380' from DER, 646' left of centerline, 68' AGL/1107' MSL. Multiple fences beginning 13' from DER, 361' left of centerline, up to 8' AGL/1043' MSL.

BIGFORK, MN
BIGFORK MUNI (FOZ)
ORIG -A 10126 (FAA)
TAKE-OFF MINIMUMS: **Rwy 15,** 400-1 or std. with a min. climb of 332' per NM to 1900.

BISMARCK, ND
BISMARCK MUNI (BIS)
AMDT 7 01137 (FAA)
DEPARTURE PROCEDURE: **Rwys 3, 31,** climb runway heading to 2500 before proceeding on course. **Rwys 13, 21,** climb runway heading to 3800 before proceeding south.

BOTTINEAU, ND
BOTTINEAU MUNI (D09)
AMDT 1 10154 (FAA)
TAKE-OFF MINIMUMS: **Rwys 3, 21,** NA.
DEPARTURE PROCEDURE: **Rwy 13,** climb heading 127° to 2200 before turning left. **Rwy 31,** climb heading 307° to 2600 before turning right.
NOTE: **Rwy 31,** street light 116' from DER, 474' left of centerline, 16' AGL/1700' MSL.

BRAINERD, MN
BRAINERD LAKES RGNL (BRD)
AMDT 5A 10126 (FAA)
NOTE: **Rwy 12,** multiple trees beginning 165' from DER, 417' left of centerline, up to 78' AGL/1279' MSL. Multiple trees and vehicle on road beginning 304' from DER, 206' right of centerline, up to 66' AGL/1277' MSL. **Rwy 16,** multiple trees beginning 1830' from DER, 749' left of centerline, up to 74' AGL/1314' MSL. **Rwy 23,** multiple trees beginning 1495' from DER, 179' left of centerline, up to 48' AGL/1285' MSL. Tree 2437' from DER, 716' right of centerline, 50' AGL/1279' MSL. **Rwy 30,** multiple trees beginning 243' from DER, 131'left of centerline, up to 61' AGL/1287' MSL. Multiple trees 48' from DER, 328' right of centerline, up to 59' AGL/1329' MSL. **Rwy 34,** trees beginning 2341' from DER, left and right of centerline, up to 93' AGL/1293' MSL.

BRITTON, SD
BRITTON MUNI (BTN)
AMDT 2 96060 (FAA)
TAKE-OFF MINIMUMS: **Rwy 13,** 300-1 or std. with a min. climb of 450' per NM to 1600. **Rwy 19,** 300-1.
DEPARTURE PROCEDURE: **Rwy 19,** climb runway heading to 2000 before turning.

BROOKINGS, SD
BROOKINGS RGNL (BKX)
ORIG 09015 (FAA)
NOTE: **Rwy 12,** pole and trees beginning 1041' from departure end of runway, 207' left of centerline, up to 65' AGL/1705' MSL. Building 1277' from departure end of runway, 825' right of centerline, 38' AGL/1618' MSL. **Rwy 17,** vehicle on road 799' from departure end of runway, on centerline, up to 15' AGL/1687' MSL. Trees beginning 906' from departure end of runway, 464' left of centerline, up to 100' AGL/1749' MSL. **Rwy 30,** railroad beginning 547' from departure end of runway, 502' right of centerline, 23' AGL/1626' MSL. Tree 132' from departure end of runway, 433' left of centerline, 20' AGL/1615' MSL. **Rwy 35,** trees 2892' from departure end of runway, 944' right of centerline, up to 100' AGL/1709' MSL.

CANBY, MN
MYERS FIELD (CNB)
ORIG 07186 (FAA)
NOTE: **Rwy 12,** truck on road 183' from departure end of runway, 220' right of centerline, 15' AGL/1204' MSL.

CASSELTON, ND
CASSELTON ROBERT MILLER RGNL (5N8)
ORIG 07354 (FAA)
TAKE-OFF MINIMUMS: **Rwy 31,** 400-2½ or std. w/ a min. climb of 212' per NM to 1400 or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1700' prior to departure end of runway.
NOTE: **Rwy 13,** railroad 30' from departure end of runway, 505' right of centerline, 23' AGL/945' MSL. Vehicle on road 449' from departure end of runway, 300' left of centerline, 15' AGL/949' MSL. **Rwy 31,** trees 2251' from departure end of runway, 456' left of centerline, up to 100' AGL/1052' MSL.

CAVALIER, ND
CAVALIER MUNI (2C8)
ORIG 03191 (FAA)
TAKE-OFF MINIMUMS: **Rwy 16,** 300-1 or std. with a min. climb of 430' per NM to 1200.
NOTE: **Rwy 16,** grain elevator 3731' from departure end of runway, 284' left of centerline, 168' AGL/1060' MSL.

CHAMBERLAIN, SD
CHAMBERLAIN MUNI (9V9)
ORIG 10154 (FAA)
TAKE-OFF MINIMUMS: **Rwys 18, 36,** NA-Environmental.
NOTE: **Rwy 31,** fence 457' from DER, 376' left of centerline, 10' AGL/1705' MSL. Fence 1294' from DER, 424' right of centerline, 10' AGL/1722' MSL. Trees beginning 1763' from DER, 892' left of centerline, up to 100' AGL/1819' MSL. Trees beginning 189' from DER, 41' right of centerline, up to 100' AGL/1819' MSL.

CLOQUET, MN
CLOQUET CARLTON COUNTY (COQ)
AMDT 1 80248 (FAA)
TAKE-OFF MINIMUMS: **Rwy 7,** 300-1 or std. with a min. climb of 400' per NM to 1400.

CROOKSTON, MN
CROOKSTON MUNI-KIRKWOOD FIELD (CKN)
AMDT 2 07298 (FAA)
TAKE-OFF MINIMUMS: **Rwys 6, 17, 24, 35,** NA-turf runways.
NOTE: **Rwy 13,** tree 1998' from departure end of runway, 587' left of centerline, 94' AGL/970' MSL. Pole 1127' from departure end of runway, 662' left of centerline, 46' AGL/926' MSL.

CROSBY, ND
CROSBY MUNI (D50)
ORIG 10154 (FAA)
TAKE-OFF MINIMUMS: **Rwys 3, 21,** NA-Environmental.
NOTE: **Rwy 12,** hangars and poles beginning 133' from DER, 263' right of centerline, up to 35' AGL/1983' MSL. Vehicle on road 800' from DER, 200' right of centerline, 22' AGL/1967' MSL. **Rwy 30,** power line, 2100' from DER, on centerline, 60' AGL/2011' MSL.

DETROIT LAKES, MN
DETROIT LAKES-WETHING FIELD (DTL)
ORIG 05132 (FAA)
TAKE-OFF MINIMUMS: **Rwys 17, 35,** NA.
NOTE: **Rwy 31,** highway 243' from departure end of runway, 267' right of centerline, 15' AGL/1404' MSL. Railroad 534' from departure end of runway, 298' right of centerline, 23' AGL/1411' MSL.

DEVILS LAKE, ND
DEVILS LAKE RGNL (DVL)
AMDT 1A 09351 (FAA)
TAKE-OFF MINIMUMS: **Rwy 31,** 300-1 or std. with a min. climb of 350' per NM to 1600.
NOTE: **Rwy 3,** tree 1528' from DER, 319' left of centerline, 100' AGL/1490' MSL. Tree 1520' from DER, 136' right of centerline, 100' AGL/1489' MSL. **Rwy 13,** bush 266' from DER, 523' left of centerline, 17' AGL/1451' MSL. Road, light pole and antenna on building beginning 95' from DER, 414' right of centerline, up to 17' AGL/1484' MSL. **Rwy 21,** roads beginning 335' from DER, 2' right of centerline, 15' AGL/1447' MSL, multiple poles, trees and towers beginning 552' from DER 355' left of centerline, up to 123' AGL/1548' MSL. **Rwy 31,** road 470' from DER, 424' right of centerline, 15' AGL/1472' MSL. Multiple poles and trees beginning 1180' from DER, 354' left of centerline, up to 49' AGL/1545' MSL.

DICKINSON, ND
DICKINSON-THEODORE ROOSEVELT RGNL (DIK)
AMDT 1 05244 (FAA)
DEPARTURE PROCEDURE: **Rwy 25,** climb via heading 250° to 3100 before turning left.
NOTE: **Rwy 7,** road 887' from departure end of runway, on rwy centerline, 15' AGL/2631' MSL.

DODGE CENTER, MN
DODGE CENTER (TOB)
ORIG 09015 (FAA)
TAKE-OFF MINIMUMS: **Rwy 22,** NA-Environmental.
NOTE: **Rwy 16,** trees 3945' from departure end of runway, 1542' left of centerline, 100' AGL/1409' MSL.

DULUTH, MN
DULUTH INTL (DLH)
ORIG 06327 (FAA)
NOTE: **Rwy 3,** multiple trees beginning 21' from departure end of runway, 226' right of centerline, up to 68' AGL/1477' MSL. Multiple trees beginning 246' from departure end of runway, 26' left of centerline, up to 64' AGL/1473' MSL. **Rwy 9,** electrical equipment 207' from departure end of runway, 408' left of centerline, 6' AGL/1425' MSL. **Rwy 21,** tower 3762' from departure end of runway, 410' left of centerline, 92' AGL/1522' MSL. **Rwy 27,** tree 2426' from departure end of runway, 1127' right of centerline, 53' AGL/1522' MSL. Bush and multiple trees beginning 347' from departure end of runway, 484' left of centerline, up to 44' AGL/1533' MSL.

DULUTH, MN (CON'T)
SKY HARBOR (DYT)
ORIG 83174 (FAA)
TAKE-OFF MINIMUMS: **Rwy 14,** 300-1. **Rwy 32,** 1500-2 or std. with a min. climb of 360' per NM to 2300.
DEPARTURE PROCEDURE: **Rwy 14,** northwest departures (260° CW 030°) climb to 2300 via heading 260° or 030° before proceeding on course.

EAGLE BUTTE, SD
CHEYENNE EAGLE BUTTE (84D)
ORIG 96228 (FAA)
TAKE-OFF MINIMUMS: **Rwys 13,31,** 300-1.

ELY, MN
ELY MUNI (ELO)
AMDT 2 97086 (FAA)
TAKE-OFF MINIMUMS: **Rwy 12,** 300-1 or std. with a min. climb of 200' per NM to 1600.
DEPARTURE PROCEDURE: **Rwy 30,** northbound departures climb runway heading to 2000 before turning.

EVELETH, MN
EVELETH-VIRGINIA MUNI (EVM)
AMDT 2 94118 (FAA)
TAKE-OFF MINIMUMS: **Rwy 32,** 800-2 or std. with a min. climb to 330' per NM to 2300.
DEPARTURE PROCEDURE: **Rwy 27**, northwest departures (270°-050°) climb runway heading to 2200 before turning.

FAIRMONT, MN
FAIRMONT MUNI (FRM)
AMDT 3 09127 (FAA)
NOTE: **Rwy 2,** trees beginning 2466' from DER, 1105' right of centerline, up to 100' AGL/1269' MSL. **Rwy 13,** tree 2340' from DER, 1039' left of centerline, 100' AGL/1269' MSL. **Rwy 20,** trees beginning 1640' from DER, 914' right of centerline, up to 100' AGL/1289' MSL. Trees beginning 913' from DER, 449' left of centerline, up to 100' AGL/1299' MSL. **Rwy 31,** trees beginning 954' from DER, 161' left of centerline, up to 100' AGL/1299' MSL. Trees and road beginning 791' from DER, 339' right of centerline, up to 57' AGL/1226' MSL.

FARGO, ND
HECTOR INTL (FAR)
AMDT 4 04330 (FAA)
TAKE-OFF MINIMUMS: **Rwys 13,31,** NA.
NOTE: **Rwy 9,** multiple light poles 1124' from departure end of runway, 305' left of centerline, 20' AGL/927' MSL.

FERGUS FALLS, MN
FERGUS FALLS MUNI-EINAR MICKELSON FIELD (FFM)
ORIG 09239 (FAA)
NOTE: **Rwy 13,** trees beginning 2612' from DER, 128' right of centerline, up to 100' AGL/1269' MSL. Trees beginning 2514' from DER, 42' left of centerline, up to 100' AGL/1259' MSL. **Rwy 17,** trees beginning 1100' from DER 663' right of centerline, up to 100' AGL/1269' MSL. Road 222' from DER, 469' right of centerline, 15' AGL/1173' MSL. **Rwy 35,** trees beginning 2156' from DER, 176' right of centerline, up to 100' AGL/1289' MSL.

FOSSTON, MN
FOSSTON MUNI (FSE)
AMDT 1 87351 (FAA)
TAKE-OFF MINIMUMS: **Rwys 14, 32,** IFR takeoff not authorized.
DEPARTURE PROCEDURE: **Rwy 16,** climb runway heading to 2000 before turning.

GETTYSBURG, SD
GETTYSBURG MUNI (0D8)
AMDT 1 07018 (FAA)
NOTE: **Rwy 4,** multiple trees beginning 1011' from departure end of runway, 420' left of centerline, up to 60' AGL/2119' MSL. **Rwy 13,** multiple trees beginning 1897' from departure end of runway, 975' left of centerline, 60' AGL/2119' MSL. **Rwy 22,** multiple trees beginning 679' from departure end of runway, 117' left of centerline, up to 60' AGL/2109' MSL.

GLENCOE, MN
GLENCOE MUNI (GYL)
ORIG 09071 (FAA)
NOTE: **Rwy 13,** trees beginning349' from DER, 257' right of centerline, up to 100' AGL/1099' MSL. Trees beginning 1211' from DER, 314' left of centerline, up to 100' AGL/1109' MSL. Terrain beginning 53' from DER, 166' left of centerline, up to 998' MSL. Terrain beginning 286' from DER, 435' right of centerline, up to 1001' MSL. **Rwy 31,** trees beginning 501' from DER, 530' right of centerline, up to 100' AGL/1099' MSL. Tree 2577' from DER, 129' left of centerline, 100' AGL/1109' MSL.

GLENWOOD, MN
GLENWOOD MUNI (GHW)
AMDT 2 98337 (FAA)
TAKE-OFF MINIMUMS: **Rwy 5,** 1200-2 or std. with a min. climb of 220' per NM to 2900.

GRAFTON, ND
HUTSON FIELD (GAF)
ORIG 97086 (FAA)
TAKE-OFF MINIMUMS: **Rwy 35,** 400-2 or std. with a min. climb of 420' per NM to 1300.

GRAND FORKS, ND
GRAND FORKS INTL (GFK)
AMDT 2 09071 (FAA)
NOTE: **Rwy 9L,** tree 127' from DER, 451' left of centerline, 12' AGL/853' MSL. **Rwy 27R,** bush 38' from DER, 474' right of centerline, 5' AGL/844' MSL. **Rwy 35L,** obstruction light on DME 645' from DER, 198' left of centerline, 21' AGL/860' MSL. **Rwy 35R,** tree 1259' from DER, 521' right of centerline, 41' AGL/880' MSL. Tree 1655' from DER, 271' left of centerline, 45' AGL/884' MSL.

GRAND MARAIS, MN

GRAND MARAIS/COOK COUNTY (CKC)
ORIG 09015 (FAA)

NOTE: **Rwy 9,** trees beginning 58' from departure end of runway, 168' right of centerline up to 54' AGL/1833' MSL. Bushes 112' from departure end of runway, 142' left of centerline, 11' AGL/1805' MSL. Tree 464' from departure end of runway, 75' left of centerline, 14' AGL/1813' MSL. **Rwy 27,** trees beginning 85' from departure end of runway, 187' left of centerline, up to 59' AGL/1858' MSL. Trees beginning 282' from departure end of runway, 115' right of centerline, up to 42' AGL/1861' MSL.

GRAND RAPIDS, MN

GRAND RAPIDS/ITASCA COUNTY-GORDON NEWSTROM FIELD (GPZ)
AMDT 4 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwys 5,10,23,28,** NA-Environmental.

NOTE: **Rwy 16,** tree 1655' from DER, 899' left of centerline, 51' AGL/1410' MSL. Tree 3236' from DER, 1130' right of centerline, 82' AGL/1441' MSL. **Rwy 34,** tree 3416' from DER, 1253' right of centerline, 100' AGL/1399' MSL.

GRANITE FALLS, MN

GRANITE FALLS MUNI/LENZEN-ROE MEML FLD (GDB)
ORIG 10126 (FAA)

NOTE: **Rwy 15,** trees beginning 1780' from DER, 94' left of centerline, up to 100' AGL/1149' MSL. **Rwy 33,** trees beginning 1196' from DER, right and left of centerline, up to 100' AGL/1149' MSL. Powerline 1242' from DER, 762' left of centerline, 80' AGL/1129' MSL. Train 1390' from DER, 149' left of centerline, 23' AGL/1162' MSL. Vehicle on road 1389' from DER, 156' left of centerline, up to 15' AGL/1154' MSL.

GREGORY, SD

GREGORY MUNI, FLYNN FIELD (9D1)
ORIG 97142 (FAA)

TAKE-OFF MINIMUMS: **Rwy 31,** 400-2 or std. with a min. climb of 210' per NM to 2600.

GWINNER, ND

GWINNER-ROGER MELROE FIELD (GWR)
ORIG 09183 (FAA)

TAKE-OFF MINIMUMS: **Rwys 6, 24,** NA-Environment. **Rwy 34,** Std. w/ min. climb of 216' per NM to 2000, or 900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 34,** for climb in visual conditions, cross Gwinner-Roger Melroe Field at or above 2000, before proceeding on course.

NOTE: **Rwy 16,** terrain beginning 15' from DER, 73' right of centerline, 1257' MSL. **Rwy 34,** road and vehicle 436' from DER, on centerline, 15' AGL/1286' MSL.

HAWLEY, MN

HAWLEY MUNI (04Y)
ORIG 07074 (FAA)

NOTE: **Rwy 34,** road 15' from departure end of runway, 421' left of centerline, 15' AGL/1224' MSL.

HETTINGER, ND

HETTINGER MUNI (HEI)
AMDT 2 10154 (FAA)

TAKE-OFF MINIMUMS: **Rwy 12,** 300-1 or std. with a min. climb of 324' per NM to 3000. **Rwys 17, 35,** NA-Environmental.

NOTE: **Rwy 30,** road plus vehicles beginning 63' from DER, crossing left to right, 15' AGL/2744' MSL. Trees beginning 4306' from DER, 17' right of centerline, 100' AGL/2819' MSL.

HIBBING, MN

RANGE RGNL (HIB)
AMDT 6 04218 (FAA)

DEPARTURE PROCEDURE: **Rwy 22,** climb via heading 227° to 2200 before turning right. **Rwy 31,** climb via heading 310° to 2200 before turning left.

NOTE: **Rwy 4,** antenna on pole, 361' from departure end of runway, 409' right of centerline, 1377' MSL. **Rwy 13,** obstacle light on pole, 1184' from departure end of runway, 636' left of centerline. Numerous trees beginning 1291' from departure end of runway, 745' left of centerline up to 1419' MSL. Trees 1497' from departure end of runway, 563' right of centerline, 1388' MSL. **Rwy 22,** multiple trees beginning 368' from departure end of runway, 170' right of centerline, up to 1416' MSL. Multiple trees beginning 413' from departure end of runway, 117' left of centerline, up to 1400' MSL. **Rwy 31,** light standard, 865' from departure end of runway, 595' right of centerline, 1381' MSL.

HILLSBORO, ND

HILLSBORO MUNI (3H4)
ORIG 97198 (FAA)

DEPARTURE PROCEDURE: **Rwys 16, 34,** climb runway heading to 2000 prior to turning westbound.

HINCKLEY, MN

FIELD OF DREAMS (04W)
ORIG 08045 (FAA)

NOTE: **Rwy 6,** Tree 82' from departure end of runway, 480' right of centerline, 100' AGL/1114' MSL. Tree 143' from departure end of runway, 161' left of centerline, 100' AGL/1114' MSL. **Rwy 24,** Tree 48' from departure end of runway, 165' left of centerline, 100' AGL/1124' MSL.

HOT SPRINGS, SD

HOT SPRINGS MUNI (HSR)
ORIG 97142 (FAA)

TAKE-OFF MINIMUMS: **Rwy 1,** 300-1 or std. with a min. climb of 360' per NM to 5000. **Rwy 19,** 300-2 or std. with a min. climb of 250' per NM to 5000.

DEPARTURE PROCEDURE: **Rwys 1,19,** climb runway heading to 5000 before proceeding westbound.

HURON, SD
HURON RGNL (HON)
AMDT 5 09239 (FAA)
NOTE: **Rwy 12,** trees and pole beginning 918' from DER, 525' left of centerline, up to 62' AGL/1341' MSL. Trees beginning 291' from DER, 234' right of centerline, up to 100' AGL/1389' MSL. **Rwy 17,** trees beginning 236' from DER, 307' left of centerline, up to 67' AGL/1346' MSL. Trees beginning 264' from DER, 262' right of centerline, 73' AGL/1352' MSL. **Rwy 30,** trees beginning 3428' from DER, 1378' left of centerline, up to 100' AGL/1394' MSL. **Rwy 35,** trees beginning 60' from DER, 104' left of centerline, up to 49' AGL/1328' MSL. Trees beginning 251' from DER, 97' right of centerline, 52' AGL/1331' MSL.

INTERNATIONAL FALLS, MN
FALLS INTL (INL)
AMDT 3 08101 (FAA)
NOTE: **Rwy 4,** Tree 392' from departure end of runway 311' left of centerline, 51' AGL/1231' MSL. **Rwy 13,** multiple trees beginning 1999' from departure end of runway, 773' left of centerline, up to 63' AGL/1233' MSL. Pole 1091, from departure end of runway, 703' right of centerline, 37' AGL/1207' MSL. Road 1005' from departure end of runway, 766' left of centerline, 15' AGL/1195' MSL. **Rwy 22,** Multiple trees beginning 433' from departure end of runway 273' left of centerline, up to 33' AGL/1213' MSL. Trees 1144' from departure end of runway 136' right of centerline, 28' AGL/1208' MSL. **Rwy 31,** Trees 968' from departue end of runway, 752' left of centerline, 56' AGL/1236' MSL.

JACKSON, MN
JACKSON MUNI (MJQ)
ORIG 08045 (FAA)
TAKE-OFF MINIMUMS: **Rwys 4,22,** NA-TURF.
DEPARTURE PROCEDURE: **Rwy 13,** Climb heading 134° to 1900 before turning right.
NOTES: **Rwy 13,** Trees beginning 1474' from departure end of runway, 556' left of centerline, up to 80' AGL/1539' MSL. Vehicle on road 258' from departure end of runway, 559' from centerline, 15' AGL/1459' MSL. **Rwy 31,** Vehicle on road 465' from departure end of runway, 618' left of centerline, 15' AGL/1446' MSL. Trees beginning 1616' from departure end of runway, 580' right of centerline, up to 80' AGL/1519' MSL. Trees beginning 1110' from departure end of runway, 429' left of centerline, up to 80' AGL/1509' MSL.

JAMESTOWN, ND
JAMESTOWN RGNL (JMS)
AMDT 1 07242 (FAA)
NOTE: **Rwy 22,** antenna and tank beginning 2960' from departure end of runway, 1007' left of centerline, up to 150' AGL/1631' MSL. **Rwy 31,** multiple trees beginning 2129' from departure end of runway 47' right of centerline, up to 60' AGL/1560' MSL.

KINDRED, ND
HAMRY FIELD (K74)
ORIG 10042 (FAA)
NOTE: **Rwy 29,** tree 991' from DER, 367' left of centerline, 38' AGL/982' MSL. Tree 1073' from DER, 221' left of centerline, 38' AGL/982' MSL.

LANGDON, ND
ROBERTSON FIELD (D55)
ORIG 10154 (FAA)
TAKE-OFF MINIMUMS: **Rwys 8, 26,** NA - Environmental.
NOTE: **Rwy 14,** vehicles on road beginning 479' to 684' from DER, from 238' to 413' left of centerline, up to 15' AGL/1627' MSL. **Rwy 32,** windsock 13' from DER, 416' right of centerline, 16' AGL/1619' MSL. Fence 24' from DER, 301' left of centerline, 5' AGL/1608' MSL. Fence 199' from DER, 293' left of centerline, 5' AGL/1608' MSL. Trees beginning 485' from DER 203' right of centerline, up to 30' AGL/1628' MSL. Trees beginning 1912' from DER, from 241' to 418' left of centerline, up to 78' AGL/1677' MSL.

LITCHFIELD, MN
LITCHFIELD MUNI (LJF)
DEPARTURE PROCEDURE: **Rwys 13, 31,** climb to 1800 on runway heading before proceeding on course.

LITTLE FALLS, MN
LITTLE FALLS/MORRISON COUNTY CHARLES A. LINDBERGH FIELD (LXL)
AMDT 3 96172 (FAA)
TAKE-OFF MINIMUMS: **Rwy 13,** 300-1 or std. with a min. climb of 250' per NM to 1500. **Rwy 36,** 600-1½ or std. with a min. climb of 345' per NM to 1700.
DEPARTURE PROCEDURE: **Rwy 31**, climb to 1700 before turning.

LONG PRAIRIE, MN
TODD FIELD (14Y)
ORIG 08157 (FAA)
NOTE: **Rwy 16,** tree 273' from departure end of runway, 310' right of centerline, 100' AGL/1436' MSL. **Rwy 34,** tree 70' from departure end of runway, 100' right of centerline, 100' AGL/1439' MSL. Tree 122' from departure end of runway, 105' left of centerline, 100' AGL/1436' MSL. Tree 18' from departure end of runway, 106' right of centerline, 100' AGL/1433' MSL.

LUVERNE, MN
QUENTIN AANENSON FIELD (LYV)
ORIG 10154 (FAA)
NOTE: **Rwy 18,** tree 813' from DER, 578' left of centerline, 50' AGL/1469' MSL. Road plus vehicle 685' from DER, 574' right of centerline, 15' AGL/1454' MSL. Terrain 20' from DER, on centerline, 1429' MSL. **Rwy 36,** transmission tower, 5752' from DER, 1036' right of centerline, 139' AGL/1581' MSL.

MANKATO, MN

MANKATO RGNL (MKT)
ORIG 09267 (FAA)

NOTE: **Rwy 4,** trees beginning 447' from DER, 408' right of centerline, up to 100' AGL/1078' MSL. Trees beginning 1996' from DER, 17' left of centerline, up to 100' AGL/1084' MSL. **Rwy 15,** trees beginning 1552' from DER, 719' left of centerline, up to 100' AGL/1088' MSL. **Rwy 22,** trees beginning 2370' from DER, 989' right of centerline, up to 100' AGL/1069' MSL. **Rwy 33,** trees beginning 2085' from DER, 780' right of centerline, up to 100' AGL/1077' MSL. Rising terrain 9' from DER, 65' right of centerline, up to 1029' MSL. Terrain beginning 82' from DER, 60' left of centerline, up to 1029' MSL.

MARSHALL, MN

SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FIELD (MML)
AMDT 2 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 20,** Std. w/ min. climb of 270' per NM to 2000, or 1000-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 20,** for climb in visual conditions, cross Marshall Airport at or above 2000 MSL before proceeding on course.

NOTE: **Rwy 12,** Pole 706' from departure end of runway, 671' right of centerline, 60' AGL/1212' MSL, pole 1580' from departure end of runway, 732' left of centerline, 70' AGL/1225' MSL, antenna 1496' from departure end of runway, 620' right of centerline, 64' AGL/1219' MSL, pole 1185' from departure end of runway, 540' right of centerline, 55' AGL/1210' MSL, tree 3564' from departure end of runway, 400' right of centerline, 110' AGL/1269' MSL, tree 2135' from departure end of runway, 113' left of centerline, 77' AGL/1232' MSL. **Rwy 30,** Vehicle on road 1' from departure end of runway, 435' left of centerline, 24' AGL/1200' MSL.

MILBANK, SD

MILBANK MUNI (1D1)
ORIG 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 25,** Std. w/ a min. climb of 207' per NM to 1900, or 900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 25,** For climb in visual conditions cross Milbank Muni airport at or above 1900 before proceeding on course.

NOTE: **Rwy 7,** trees beginning 1207' from departure end of runway, 387' left of centerline, up to 100' AGL/1219' MSL. Vehicle on road 829' from departure end of runway, 373' right of centerline, 15' AGL/1134' MSL. Building 322' from departure end of runway, 582' right of centerline, 25' AGL/1134' MSL. **Rwy 13,** trees beginning 1448' from departure end of runway, 394' right of centerline, up to 100' AGL/1219' MSL. Vehicle on road 218' from departure end of runway, 490' left of centerline, 15' AGL/1134' MSL. Building 78' from departure end of runway, 397' left of centerline, 25' AGL/1134' MSL. **Rwy 25,** tree 3584' from departure end of runway, 477' left of centerline, 100' AGL/1249' MSL. **Rwy 31,** tree 2992' from departure end of runway, 715' left of centerline, 100' AGL/1239' MSL.

MILLER, SD

MILLER MUNI (MKA)
ORIG 08269 (FAA)

NOTE: **Rwy 15,** vehicle on road 769' from departure end of runway, 642' right of centerline, 15' AGL/1599' MSL. Snow removal equipment 206' from departure end of runway, 475' right of centerline, 21' AGL/1594' MSL. Tree 3903' from departure end of runway, 998' left of centerline, 100' AGL/1684' MSL. **Rwy 33,** vehicle on road 450' from departure end of runway, 560' left of centerline, 15' AGL/1584' MSL. Tree 762' from departure end of runway, 628' left of centerline, 100' AGL/1669' MSL.

MINNEAPOLIS, MN

AIRLAKE (LVN)
ORIG 10154 (FAA)

NOTE: **Rwy 12,** ground 198' from DER, 533' right of centerline, 0' AGL/963' MSL. Tree and vehicle on road, beginning 422' from DER, 379' right of centerline, up to 15' AGL/978' MSL. Tree 1291' from DER, 506' left of centerline, 62' AGL/1002' MSL. **Rwy 30,** ground 104' from DER, 479' left of centerline, 0' AGL/965' MSL. Tree, pole, and antenna on building beginning 171' from DER, 259' right of centerline, up to 50' AGL/1000' MSL. Tree, railroad, and antenna on building 486' from DER, 268' left of centerline, up to 41' AGL/1001' MSL. Trees and a building beginning 821' from DER, 30' right of centerline, up to 49' AGL/1009' MSL.

ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)
AMDT 5A 10126 (FAA)

TAKE-OFF MINIMUMS; **Rwy 9,** 300-1½ or std. w/ min. climb of 204' per NM to 1200, or alternatively, with standard takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1200' prior to DER. **Rwy 18,** 300-1 or std. w/ min. climb of 367' per NM to 1200.

DEPARTURE PROCEDURE: **Rwy 9,** climb heading 089° to 2200 before turning right. **Rwy 18,** climb heading 179° to 2600 before turning left. **Rwy 27,** climb heading 269° to 1700 before proceeding southeast bound.

Rwy 36, climb heading 359° to 1700 before proceeding southeast bound.

NOTE: **Rwy 9,** tank and multiple trees beginning 822' from DER, 619' right of centerline, up to 170' AGL/1082' MSL. Trees 2248' from DER, 966' left of centerline, 100' AGL/1009' MSL. **Rwy 18,** aircraft on taxiway 36' from DER, 481' right of centerline, up to 21' AGL/928' MSL. Multiple trees beginning 406' from DER, 287' left of centerline, up to 49' AGL/959' MSL. Tower 5016' from DER, 201' left of centerline, 120' AGL/1078' MSL.

Rwy 27, multiple trees beginning 7' from DER, 235' right of centerline, up to 83' AGL/983' MSL. Multiple trees beginning 558' from DER, 406' left of centerline, up to 57' AGL/957' MSL. **Rwy 36,** multiple trees beginning 86' from DER, 10' right of centerline, up to 87' AGL/987' MSL. Multiple trees beginning 1282' from DER, 53' left of centerline, up to 70' AGL/970' MSL.

10154

MINNEAPOLIS, MN (CON'T)

CRYSTAL (MIC)
AMDT 2 81050 (FAA)

TAKE-OFF MINIMUMS: **Rwys 14L,14R,32L,32R,** 300-1. **Rwys 24L,24R,** 300-1 or std. with a min. climb of 215' per NM to 1000. **Rwys 6L, 6R,** 300-1 or std. with a min. climb of 285' per NM to 1000.

DEPARTURE PROCEDURE: **Rwys 6L,6R,14L,14R,** eastbound departures (050°-130°) climb runway heading to 2800 before turning.

FLYING CLOUD (FCM)
AMDT 4 08157 (FAA)

NOTE: **Rwy 10L,** multiple antenna's on hangar's beginning 270' from departure end of runway, 330' left of centerline, up to 26' AGL/932' MSL. Tree 682' from departure end of runway, 668' right of centerline, 26' AGL/932' MSL. **Rwy 10R,** multiple obstruction light on poles beginning 287' from departure end of runway, 345' right of centerline, up to 36' AGL/939' MSL. Hangar 150' from departure end of runway, 422' right of centerline, 21' AGL/920' MSL. Antenna on building, 536' from departure end of runway, 263' right of centerline, 14' AGL/913' MSL. **Rwy 18,** multiple trees beginning 338' from departure end of runway, 166' left of centerline, up to 62' AGL/961' MSL. Obstruction light on fence 176' from departure end of runway, 127' left of centerline, 10' AGL/910' MSL. Vehicle and road 198' from departure end of runway, 196' left of centerline, 15' AGL/918' MSL. Floodlight 148' from departure end of runway, 374' right of centerline, 38' AGL/938' MSL. Obstruction light on hangar 282' from departure end of runway, 317' right of centerline, 37' AGL/937' MSL. **Rwy 28R,** Hangar 259' from departure end of runway, 355' right of centerline, 18' AGL/931' MSL. **Rwy 36,** wind vane 923' from departure end of runway, 404' left of centerline, 61' AGL/960' MSL. Vent on building 943' from departure end of runway, 295' left of centerline, 44' AGL/943' MSL. Pole 714' from departure end of runway, 351' left of centerline, 33' AGL/932' MSL. Multiple trees beginning 504' from departure end of runway, 324' right of centerline, up to 67' AGL/966' MSL.

MINNEAPOLIS, MN (CON'T)

MINNEAPOLIS-ST. PAUL INTL
(WOLD CHAMBERLAIN) (MSP)
AMDT 11 07130 (FAA)

TAKEOFF MINIMUMS: **Rwy 35,** std. with a min. climb of 219' per NM to 2100.

DEPARTURE PROCEDURE: **Rwy 4,** climb heading 043° to 2100 before turning left. **Rwy 30L,** climb heading 299° to 2100 before turning right. **Rwy 30R,** climb heading 299° to 2100 before turning right. **Rwy 35,** climb via heading 348° to 2100 before turning left.

NOTE: **Rwy 4,** multiple trees beginning 800' from departure end of runway, 264' left of centerline, up to 75' AGL/921' MSL. Rod on building 2528' from departure end of runway, 1175' left of centerline, 78' AGL/922' MSL. Fence 803' from departure end of runway, 585' left of centerline, 15' AGL/860' MSL. Antenna on OL building 456' from departure end of runway, 319' left of centerline, 13' AGL/850' MSL. Light poles 1932' from departure end of runway, 718' left of centerline, 45' AGL/885' MSL. Stack 4535' from departure end of runway, 481' left of centerline, 139' AGL/949' MSL. **Rwy 12R,** multiple trees beginning 1477' from departure end of runway, 407' left of centerline, up to 86' AGL/851' MSL. Multiple trees beginning 1426' from departure end of runway, 124' right of centerline, up to 111' AGL/847' MSL. Light pole 1408' from departure end of runway, 746' right of centerline, 85' AGL/843' MSL. Radar RFLTR 983' from departure end of runway, 32' left of centerline, 15' AGL/829' MSL. Pipe on building, 826' from departure end of runway, 576' left of centerline, 10' AGL/825' MSL. Obstruction light on localizer 766' from departure end of runway, on centerline, 7' AGL/821' MSL. **Rwy 17,** antenna 1272' from departure end of runway, 562' right of centerline, 57' AGL/891' MSL. Pole 409' from departure end of runway, 530' right of centerline, 29' AGL/866' MSL. WDI on building 2619' from departure end of runway, 881' left of centerline, 97' AGL/918' MSL. Building 2619' from departure end of runway, 859' left of centerline, 84' AGL/905' MSL. Light 1176' from departure end of runway, 291' right of centerline, 11' AGL/875' MSL. Tree 2619' from departure end of runway, on centerline, 79' AGL/900' MSL. **Rwy 22,** tree 2906' from departure end of runway, 833' right of centerline, 94' AGL/934' MSL. Hopper 1717' from departure end of runway, 456' left of centerline, 48' AGL/888' MSL. **Rwy 30L,** multiple trees beginning 1113' from departure end of runway, 701' left of centerline, up to 80' AGL/919' MSL. Tree 1230' from departure end of runway, 633' right of centerline, 30' AGL/877' MSL. Ground 28' from departure end of runway, 490' right of centerline, 0' AGL/844' MSL. **Rwy 30R,** building 1056' from departure end of runway, 198' left of centerline, 13' AGL/853' MSL. Multiple trees beginning 3010' from departure end of runway, 334' left of centerline, up to 94' AGL/940' MSL. Light pole 1849' from departure end of runway, 698' right of centerline, 17' AGL/871' MSL. Fence 1327' from departure end of runway, 667' right of centerline, 8' AGL/857' MSL. Tree 3703' from departure end of runway, 350' right of centerline, 67' AGL/914' MSL. Rod on pole 3143' from departure end of runway, 47' right of centerline, 38' AGL/898' MSL. **Rwy 35,** tree 175' from departure end of runway, 398' right of centerline, 73' AGL/883' MSL. Multiple trees beginning 1989' from departure end of runway, 351' left of centerline, up to 65' AGL/902' MSL. Multiple buildings beginning 5.45 NM from departure end of runway, 1787' left of centerline, up to 811' AGL/1743' MSL.

MINOT, ND
MINOT INTL (MOT)
AMDT 3 06103 (FAA)
TAKE-OFF MINIMUMS: **Rwy 26,** 300-1½ or std. with a min. climb of 219' per NM to 2000.
DEPARTURE PROCEDURE: **Rwy 13,** climb via heading 128° to 2200 before turning right. **Rwy 26,** climb via heading 260° to 2300 before turning left.
NOTE: **Rwy 8,** tree 1801' from departure end of runway, 292' left of centerline, 56' AGL/1714' MSL. Tree 1459' from departure end of runway, 528' left of centerline, 47' AGL/1705' MSL. **Rwy 26,** tree 1750' from departure end of runway, 618' right of centerline, 71' AGL/1786' MSL. Tree 1829' from departure end of runway, 376' left of centerline, 65' AGL/1780' MSL. Light pole 1110' from departure end of runway, 610' left of centerline, 44' AGL/1759' MSL. Tank 1.1 NM from departure end of runway, 1810' right of centerline, 184' AGL/1899' MSL. Tree 1782' from departure end of runway, 273' right of centerline, 49' AGL/1764' MSL. Light pole 1294' from departure end of runway, 452' right of centerline, 29' AGL/1751' MSL. Tree 2019' from departure end of runway, 393' right of centerline, 54' AGL/1769' MSL. Building 1431' from departure end of runway, 301' right of centerline, 38' AGL/1753' MSL. Light pole 1418' from departure end of runway, 23' right of centerline, 36' AGL/1751' MSL.

MITCHELL, SD
MITCHELL MUNI (MHE)
AMDT 1 86240 (FAA)
DEPARTURE PROCEDURE: **Rwys 12, 17,** climb to 1800 before turning.

MOBRIDGE, SD
MOBRIDGE MUNI(MBG)
ORIG 88154 (FAA)
TAKE-OFF MINIMUMS: **RWY 35,** 300-1.
DEPARTURE PROCEDURE: **Rwys 12, 17, 30, 35,** climb runway heading to 2500 before turning on course.

MONTEVIDEO, MN
MONTEVIDEO-CHIPPEWA COUNTY (MVE)
TAKE-OFF MINIMUMS: **Rwy 21,** 400-1½.
DEPARTURE PROCEDURE: **Rwy 14,** climb runway heading to 1500 before turning.

MOOSE LAKE, MN
MOOSE LAKE CARLTON COUNTY (MZH)
ORIG 94006 (FAA)
TAKE-OFF MINIMUMS: **Rwys 4, 22,** 300-1.

MORRIS, MN
MORRIS MUNI-CHARLIE SCHMIDT FLD (MOX)
ORIG 08045 (FAA)
TAKE-OFF MINIMUMS: **Rwys 4, 22,** NA-Environmental.
NOTE: **Rwy 32,** Trees 2888' from departure end of runway, 1125' left of centerline, 100' AGL/1209' MSL.

OAKES, ND
OAKES MUNI (2D5)
ORIG 97142 (FAA)
TAKE-OFF MINIMUMS: **Rwy 30,** 300-1 or std. with a min. climb of 260' per NM to 1700.

OLIVIA, MN
OLIVIA RGNL (OVL)
AMDT 1 86044 (FAA)
TAKE-OFF MINIMUMS: **Rwy 11,** 300-1.

ORR, MN
ORR RGNL (ORB)
AMDT 1 80136 (FAA)
TAKE-OFF MINIMUMS: **Rwy 13,** 500-2 or std. with a min. climb of 260' per NM to 1900.

ORTONVILLE, MN
ORTONVILLE MUNI-MARTINSON FIELD (VVV)
ORIG 81274 (FAA)
TAKE-OFF MINIMUMS: **Rwy 16,** 300-1 or std. with a min. climb of 210' per NM to 1300.

OWATONNA, MN
OWATONNA DEGNER RGNL (OWA)
AMDT 2 97030 (FAA)
DEPARTURE PROCEDURE: **Rwy 12,** climb runway heading to 1500 before turning on course.

PEMBINA, ND
PEMBINA MUNI (PMB)
ORIG 85325 (FAA)
DEPARTURE PROCEDURE: **Rwy 33,** climb runway heading 3200 before turning left.

PERHAM, MN
PERHAM MUNI (16D)
ORIG 98113 (FAA)
TAKE-OFF MINIMUMS: **Rwy 12,** 500-2 or std. with a min. climb of 210' per NM to 2000. **Rwy 30,** 400-1 or std. with a min. climb of 270' per NM to 1800.
DEPARTURE PROCEDURE: **Rwy 12,** climb runway heading to 2000 before proceeding on course. **Rwy 30,** climb runway heading to 1800 before proceeding on course.

PIERRE, SD
PIERRE RGNL (PIR)
AMDT 2 85115 (FAA)
TAKE-OFF MINIMUMS: **Rwy 25,** 300-1.

PINE RIDGE, SD
PINE RIDGE (IEN)
ORIG 97226 (FAA)
TAKE-OFF MINIMUMS: **Rwy 12,** 300-1 or std. with a min. climb of 350' per NM to 3600. **Rwy 24,** 300-1 or std. with a min. climb of 220' per NM to 3500. **Rwy 30,** 300-1 or std. with a min. climb of 300' per NM to 3600.

PIPESTONE, MN
PIPESTONE MUNI (PQN)
ORIG 08045 (FAA)
TAKE-OFF MINIMUMS: **Rwys 9, 27,** NA-Environmental.
NOTE: **Rwy 18,** Trees beginning 3811' from departure end of runway, 854' right of centerline, up to 100' AGL/1859' MSL.

PRESTON, MN
FILLMORE COUNTY (FKA)
ORIG 98113 (FAA)
TAKE-OFF MINIMUMS: **Rwys 11,29,** 300-1.

PRINCETON, MN
PRINCETON MUNI (PNM)
AMDT 1 05132 (FAA)
NOTE: **Rwy 15,** trees 982' from departure end of runway, 335' right of centerline, 50' AGL/1029' MSL. Trees 1449' from departure end of runway, 387' left of centerline, 50' AGL/1029' MSL. **Rwy 33,** barn 1159' from departure end of runway, 780' right of centerline, 50' AGL/1139' MSL, multiple trees, terrain, and road beginning 36' from departure end of runway, 84' right of centerline, up to 50' AGL/1045' MSL.

RAPID CITY, SD
RAPID CITY RGNL (RAP)
AMDT 6 07130 (FAA)
DEPARTURE PROCEDURE: **Rwy 5,** climb on heading between 255° clockwise to 210° from departure end of runway, or min. climb of 240' per NM to 8800 for all other courses. **Rwy 14,** climb on heading between 325° clockwise to 210° from departure end of runway, or min. climb of 245' per NM to 8900 for all other courses. **Rwy 23,** climb on heading between 210° counter clockwise to 055° from departure end of runway, or min. climb of 268' per NM to 8900 for all other courses. **Rwy 32,** climb on heading between 255° clockwise to 140° from departure end of runway, or min. climb of 242' per NM to 8800 for all other courses.
NOTE: **Rwy 5,** fence 133' from departure end of runway, 249' left of centerline, 10' AGL/3215' MSL. **Rwy 23,** hangar 201' from departure end of runway, 299' left of centerline, 24' AGL/3193' MSL. Fence 334' from departure end of runway, 256' right of centerline, 10' AGL/3184' MSL. **Rwy 32,** obstruction light 662' from departure end of runway, 243' left of centerline, 54' AGL/3213' MSL. Fence 1002' from departure end of runway, 751' right of centerline, 10' AGL/3233' MSL. Tower 1.9 NM from departure end of runway, 3503' right of centerline, 152' AGL/3520' MSL.

RAY S. MILLER AAF (KRYM)
CAMP RIPLEY, MN AMDT 2, 09155
TAKE-OFF OBSTACLES: **Rwy 13**, Terrain 1270' MSL, 73' from DER, 8' left and right of centerline. Vehicle 15' AGL/1180' MSL, 765' from DER, 638' left of centerline. **Rwy 31,** Terrain 1273' MSL, 54' from DER, 9' left and right of centerline. Trees 64' AGL/1282' MSL, 798' from DER, 325' left and right of centerline.

RED WING, MN
RED WING RGNL (RGK)
AMDT 1 01137 (FAA)
DEPARTURE PROCEDURE: **Rwy 9,** 700-4 or std. with a min. climb of 270' per NM to 1700.

REDWOOD FALLS, MN
REDWOOD FALLS MUNI (RWF)
ORIG 09071 (FAA)
TAKE-OFF MINIMUMS: **Rwys 5, 23,** NA-Environmental.
NOTE: **Rwy 12,** numerous buildings beginning 388' from DER, 376' right of centerline, up to 13' AGL/1052' MSL. Numerous fences beginning 6' from DER, 329' right of centerline, up to 13' AGL/1052' MSL. Tree 62' from DER, 444' left of centerline, 11' AGL/1040' MSL. **Rwy 30,** multiple trees beginning 865' from DER, 401' right of centerline, up to 100' AGL/1119' MSL. Vehicle on road 128' from DER, 306' right of centerline, 15' AGL/1027' MSL.

ROCHESTER, MN
ROCHESTER INTL (RST)
ORIG 09015 (FAA)
NOTE: **Rwy 2,** road 73' from departure end of runway, 385' right of centerline, 10' AGL/1292' MSL. Tree 4377' from departure end of runway, 1132' right of centerline, 100' AGL/1399' MSL. Road 268' from departure end of runway, 366' right of centerline, 10' AGL/1290' MSL. **Rwy 13,** tree 1498' from departure end of runway, 840' right of centerline, 44' AGL/1348' MSL. **Rwy 20,** pole 259' from departure end of runway, 407' right of centerilne, 23' AGL/1338' MSL. Roads beginning 1' from departure end of runway, 231' right of centerline, up to 10' AGL/1327' MSL. **Rwy 31,** tree 4760' from departure end of runway, 1103' left of centerline, 100' AGL/1389' MSL.

ROSEAU, MN
ROSEAU MUNI-RUDY BILLBERG FIELD (ROX)
ORIG 07242 (FAA)
NOTE: **Rwy 16,** building 258' from departure end of runway, 505' right of centerline, 24' AGL/1078' MSL. Tree 1582' from departure end of runway, 337' left of centerline, 47' AGL/1101' MSL. **Rwy 34,** truck on road 41' from departure end of runway, 511' left of centerline, 15' AGL/1069' MSL.

RUSHFORD, MN
RUSHFORD MUNI (55Y)
AMDT 1 96228 (FAA)
TAKE-OFF MINIMUMS: **Rwy 34,** 300-1 or std. with a min. climb of 300' per NM to 1500.
DEPARTURE PROCEDURE: **Rwy 16,** climb runway heading to 1700 before turning eastbound.

ST. CLOUD, MN

ST. CLOUD RGNL (STC)
ORIG 09239 (FAA)

TAKE-OFF MINIMUMS: **Rwy 5,** 300-1¼ or std. w/ min. climb of 201' per NM to 1300 or alternatively, with standard take-off minimums and a normal 200'/NM climb gradient, take-off must occur no later than 1100' prior to DER.

NOTE: **Rwy 5,** tower 6201' from DER, 1416' left of centerline, 149' AGL/1179' MSL. Multiple trees beginning 17' from DER, 373' right of centerline, up to 59' AGL/1081' MSL. Multiple trees beginning 1752' from DER, 56' left of centerline, up to 80' AGL/1102' MSL. **Rwy 13,** tree 1654' from DER, 884' right of centerline, 61' AGL/1078' MSL. Tree 1265' from DER, 794' left of centerline, 42' AGL/1059' MSL. **Rwy 23,** trees 2109' from DER, 29' right of centerline, up to 61' AGL/1082' MSL. Trees 1725' from DER, 93' left of centerline, up to 55' AGL/1076' MSL. Fence 74' from DER, 216' left of centerline, 2' AGL, 1023' MSL. **Rwy 31,** terrain beginning 29' from DER, 50' right of centerline, up to 1083' MSL. Terrain beginning 107' from DER, 7' left of centerline, up to 1060' MSL.

ST. JAMES, MN

ST. JAMES MUNI (JYG)
ORIG 94342 (FAA)

DEPARTURE PROCEDURE: **Rwy 15,** climb to 1900 before turning eastbound.

ST. PAUL MN

LAKE ELMO (21D)
ORIG 80318 (FAA)

TAKE-OFF MINIMUMS: **Rwy 22,** 300-1 or std. with a min. climb of 225' per NM to 1100.

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)
AMDT 7 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwy 9,** std. w/ min. climb of 346' per NM to 1500. **Rwy 13,** std. w/ min. climb of 266' per NM to 1500. **Rwy 14,** std. w/ min. climb of 216' per NM to 1500. **Rwy 27,** std. w/ min. climb of 436' per NM to 1500. **Rwy 31**, NA - obstacles. **Rwy 32,** std. w/ min. climb of 340' per NM to 3000.

DEPARTURE PROCEDURE: **Rwy 9,** climb heading 088° to 1500 before proceeding on course. **Rwy 13,** climb heading 125° to 1500 before proceeding on course.

Rwy 14, climb heading 143° to 1500 before proceeding on course. **Rwy 27,** climb heading 268° to 1700 before proceeding on course. **Rwy 32,** climb heading 323° to 1300 before proceeding on course.

NOTE: **Rwy 9,** multiple trees beginning 1265' from departure end of runway, 167' right of centerline, up to 75' AGL/1055' MSL. Multiple trees beginning 1.1 NM from departure end of runway, 124' left of centerline, up to 100' AGL/1099' MSL. Obstruction light tank 1571' from departure end of runway, 771' right of centerline, 50' AGL/811' MSL. Mobile crane 1163' from departure end of runway, 123' left of centerline, 50' AGL/ 758' MSL.

ST. PAUL DOWNTOWN HOLMAN FIELD (STP) (CON'T)

Rwy 13, Obstruction light stack 2695' from departure end of runway, 842' right of centerline, 50' AGL/820' MSL. Tree 1563' from departure end of runway, 25' right of centerline, 61' AGL/748' MSL. Multiple trees beginning 1004' from departure end of runway, 607' left of centerline, 50' AGL/767' MSL. Tower 1,725' from departure end of runway, 930' left of centerline, 47' AGL/753' MSL. Vent on building 3029' from departure end of runway, 629' right of centerline, 10' AGL/783' MSL. Multiple bushes beginning 194' from departure end of runway 88' left of centerline, 7' AGL/712' MSL. Stack 1,879' from departure end of runway, 25' left of centerline, 51' AGL/751' MSL. **Rwy 14,** multiple trees beginning 805' from departure end of runway, 2' right of centerline, up to 112' AGL/811' MSL. Multiple trees beginning 1205' from departure end of runway, 64' left of centerline, up to 80' AGL/770' MSL. Poles 2810' from departure end of runway 715' right of centerline, 91' AGL/778' MSL. **Rwy 27,** multiple trees beginning 803' from departure end of runway, 122' left of centerline, up to 100' AGL/994' MSL. Tree 783' from departure end of runway, 105' right of centerline, 25' AGL/725' MSL. Obstruction light antenna 996' from departure end of runway, 304' right of centerline, 67' AGL/ 767' MSL. Light pole 1328' from departure end of runway, 222' left of centerline, 50' AGL/747' MSL. Building 2049' from departure end of runway, 837' right of centerline, 57' AGL/761' MSL. Flagpole 2333' from departure end of runway, 199' left of centerline, 78' AGL/778' MSL. Stack 1.8 NM from departure end of runway, 635' left of centerline, 569' AGL/1279' MSL. **Rwy 32,** road and vehicle 211' from departure end of runway, 482' left of centerline, 17' AGL/717' MSL. Railroad beginning 369' from departure end of runway, 329' left of centerline, up to 23' AGL/727' MSL. Pipe on DME 383' from departure end of runway, 269' right of centerline, 17' AGL/722' MSL. Tree 1152' from departure end of runway, 209' left of centerline, 44' AGL/744' MSL. Tree 1685' from departure end of runway, 277' right of centerline, 75' AGL/770' MSL. Sign 5668' from departure end of runway, 1924' left of centerline, 86' AGL/874' MSL. Trees 5614' from departure end of runway, 1796' right of centerline, 100' AGL/939' MSL. Building 5779' from departure end of runway, 1733' right of centerline, 72' AGL/910' MSL. Pole 1.0 NM from departure end of runway, 1835' right of centerline, 157' AGL/973' MSL. Building 1.1 NM from departure end of runway, 2170' left of centerline, 122' AGL/886' MSL. Multiple buildings beginning 1.1 NM from departure end of runway, 378' left of centerline, up to 142' AGL/918' MSL

SILVER BAY, MN

SILVER BAY MUNI (BFW)
ORIG 93035 (FAA)

TAKE-OFF MINIMUMS: **Rwys 7, 25,** 300-1.

SIOUX FALLS, SD

JOE FOSS FIELD (FSD)
AMDT 7 07242 (FAA)

TAKE-OFF MINIMUMS: **Rwy 15,** 200-1 or std. w/ min. climb of 404' per NM to 1700. **Rwy 33,** 200-1¼ or std. w/ min. climb of 343' per NM to1700.

DEPARTURE PROCEDURE: **Rwy 3,** climb heading 030° to 2300 before turning eastbound. **Rwy 9,** climb heading 098° to 2000, then left turn direct FSD VORTAC. **Rwy 15,** climb heading 150° to 2000, then right turn direct FSD VORTAC. **Rwy 21,** climb heading 210° to 2200 before turning eastbound. **Rwy 27,** climb heading 278° to 2100 before turning eastbound. **Rwy 33,** climb heading 330° to 2200 before turning eastbound.

NOTE: **Rwy 9,** antenna 2238' from departure end of runway, 919' right of centerline, 87' AGL/1506' MSL. Pole 1256' from departure end of runway, 23' left of centerline, 43' AGL/1464' MSL. Windsock 331' from departure end of runway, 582' right of centerline, 14' AGL/1433' MSL. **Rwy 15,** antenna 3056' from departure end of runway, 983' left of centerline 117' AGL/1576' MSL. Multiple trees beginning 1211' from departure end of runway, 471' left of centerline, up to 38' AGL/1477' MSL. Tower 3102' from departure end of runway, 972' left of centerline, 61' AGL/1520' MSL. Trees and pole beginning 1746' from departure end of runway, 316' right of centerline, up to 87' AGL/1516' MSL. **Rwy 21,** multiple trees beginning 428' from departure end of runway, 522' right of centerline, up to 75' AGL/1497' MSL. **Rwy 27,** multiple trees beginning 2528' from departure end of runway, 1027' left of centerline, up to 100' AGL/1509' MSL. **Rwy 33,** 2 lighted radio towers 3639' from departure end of runway, 894' left of centerline, 88' AGL/1585' MSL, multiple trees beginning 5370' from departure end of runway, 891' left of centerline, up to 175' AGL/1603' MSL, pole 5724' from departure end of runway, 1701' left of centerline, 45' AGL/1594' MSL.

SPEARFISH, SD

BLACK HILLS-CLYDE ICE FIELD (SPF)

TAKE-OFF MINIMUMS: **Rwys 3, 8, 21, 35,** 700-2 (NA at night.). **Rwy 13,** 900-2 or std. with a min. climb of 300' per NM to 5400. **Rwy 17,** NA. **Rwys 26, 31,** 700-2 or std. with a min. climb of 370' per NM to 4700.

DEPARTURE PROCEDURE: **Rwys 3, 8,** turn left. Climb to 6500, intercept the 046° bearing outbound from SPF NDB. Thence... **Rwy 13,** climb runway heading to 4300, then climbing left turn to 6500 via heading 360° to intercept the 046° bearing outbound from SPF NDB. Thence... **Rwys 21, 35,** turn right. Climb to 6500 intercept the 046° bearing outbound from SPF NDB. Thence... **Rwy 26,** climbing right turn to 6500 via heading 330°, intercept the 297° bearing outbound from SPF NDB. Thence... **Rwy 31,** after take-off, intercept 297° bearing outbound from SPF NDB. Climb to 6500. Thence... THENCE...Continue climb to enroute MEA's before proceeding on course.

STAPLES, MN

STAPLES MUNI (SAZ)
AMDT 2 87211 (FAA)

TAKE-OFF MINIMUMS: **Rwy 14,** 400-2.

STURGIS, SD

STURGIS MUNI (49B)
ORIG 96284 (FAA)

DEPARTURE PROCEDURE: **Rwy 11,** climb runway heading to 6000, then direct RAP VORTAC. **Rwy 29,** climb runway heading to 5000, then climbing right turn to 6000 direct RAP VORTAC.

THIEF RIVER FALLS, MN

THIEF RIVER FALLS RGNL (TVF)
ORIG 09071 (FAA)

NOTE: **Rwy 3,** trees beginning 3058' from DER, 678' right of centerline, up to 100' AGL/1229' MSL. **Rwy 13,** trees beginning 565' from DER, 372' left of centerline, up to 100' AGL/1214' MSL. Trees beginning 1337' from DER, 531' right of centerline, up to 100' AGL/1209' MSL. **Rwy 21,** trees beginning 214' from DER, 544' right of centerline, up to 100' AGL/1204' MSL. Trees beginning 2185' from DER, 33' left of centerline, up to 100' AGL/1209' MSL. **Rwy 31,** trees beginning 126' from DER, 410' right of centerline, up to 100' AGL/1214' MSL. Trees beginning 199' from DER, 413' left of centerline, up to 100' AGL/1209' MSL. Trees beginning 1204' from DER, 449' right of centerline, up to 100' AGL/1199' MSL. Trees beginning 1579' from DER, 495' left of centerline, up to 100' AGL/1214' MSL.

TIOGA, ND

TIOGA MUNI (D60)
ORIG 09239 (FAA)

TAKE-OFF MINIMUMS: **Rwys 3, 21,** NA-Environmental.

NOTE: **Rwy 12,** vehicle on road 1243' from DER, 78' left of centerline, 15' AGL/2304' MSL. Vehicle on road, tree and pole beginning 618' from DER, 50' right of centerline, up to 100' AGL/2419' MSL. Ground 21' from DER, 481' right of centerline, 2272' MSL. **Rwy 30,** vehicle on road 1' from DER, 144' left of centerline, 15' AGL/2256' MSL.

TOWER, MN

TOWER MUNI (12D)
ORIG 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 8,** NA - Obstacles.

NOTE: **Rwy 26,** tree 2315' from DER, 700' right of centerline, 100' AGL/1479' MSL.

VALLEY CITY, ND

BARNES COUNTY MUNI (6D8)
ORIG 10098 (FAA)

NOTE: **Rwy 13,** vehicle on road, 111' from DER, 356' right of centerline, 15' AGL/1396' MSL. Trees beginning 644' from DER, 242' right of centerline, up to 40' AGL/1421' MSL. **Rwy 31,** terrain beginning 32' from DER, 20' right of centerline, up to 1424' MSL. Vehicle on road 38' from DER, 285' right of centerline, 15' AGL/1418' MSL. Fence 71' from DER, 292' left of centerline, 4' AGL/1407' MSL. Terrain beginning 120' from DER, 125' left of centerline, up to 1447' MSL. Fence 198' from DER, 299' right of centerline, 4' AGL/1408' MSL. Trees beginning 365' from DER, 10' left of centerline, up to 40' AGL/1457' MSL. Tree 545' from DER, 607' right of centerline, 16' AGL/1436' MSL.

VERMILLION, SD
HAROLD DAVIDSON FIELD (VMR)
AMDT 1 09239 (FAA)
NOTE: **Rwy 12,** road 1' from DER, 200' right of centerline, up to 15' AGL/1156' MSL. Multiple trees beginning 541' from DER, 366' right of centerline, up to 62' AGL/1202' MSL. **Rwy 30,** road 79' from DER 342' left of centerline 15' AGL/1155' MSL. Road 200' from DER, 450' right of centerline, 15' AGL/1160' MSL. Fence 199' from DER, 347' left of centerline, 6' AGL/1150' MSL.

WAHPETON, ND
HARRY STERN (BWP)
ORIG 93259 (FAA)
TAKE-OFF MINIMUMS: **Rwy 3**, 300-1.

WARREN, MN
WARREN MUNI (D37)
ORIG 02108 (FAA)
DEPARTURE PROCEDURE: **Rwy 30,** climb runway heading to 1400 before turning on course.

WARROAD, MN
WARROAD INTL MEMORIAL (RRT)
ORIG 08101 (FAA)
TAKE-OFF MINIMUMS: **Rwys 4, 22,** NA-Environmental.

WASECA, MN
WASECA MUNI (ACQ)
ORIG 09015 (FAA)
NOTE: **Rwy 15,** tree 560' from departure end of runway, 560' right of centerline, 100' AGL/1239' MSL. Terrain beginning 172' from departure end of runway, on centerline, up to 1149' MSL. **Rwy 33,** tree 5042' from departure end of runway, 1533' right of centerline, 100' AGL/1259' MSL.

WATERTOWN, SD
WATERTOWN RGNL (ATY)
ORIG 07242 (FAA)
NOTE: **Rwy 12,** tree 2015' from departure end of runway, 328' right of centerline, 100' AGL/1783' MSL. **Rwy 30,** trees 2149' from departure end of runway, 10' right of centerline, 51' AGL/1810' MSL. Tree 2200' from departure end of runway, 441' left of centerline, 70' AGL/1810' MSL. Tree 2082' from departure end of runway, 121' right of centerline, 55' AGL/1806' MSL.

WATFORD CITY, ND
WATFORD CITY MUNI (S25)
AMDT 1 10154 (FAA)
TAKE-OFF MINIMUMS: **Rwy 12,** 400-1¼ or std. with a min. climb of 462' per NM to 2600. **Rwys 18, 36,** NA-Environmental.
NOTE: **Rwy 12,** tree 5528' from DER, 1819' right of centerline, up to 100' AGL/2439' MSL. Vehicle on road, trees, and terrain beginning 186' from DER, 62' right of centerline, up to 100' AGL/2258' MSL. Vehicle on road, fence, and terrain beginning 90' from DER, 43' left of centerline, up to 27' AGL/2167' MSL.
Rwy 30, trees and buildings beginning 672' from DER, 119' right of centerline, up to 41' AGL/2101' MSL. Vehicle on road, light and trees beginning 199' from DER, 128' left of centerline, up to 59' AGL/2119' MSL.

WHEATON, MN
WHEATON MUNI (ETH)
AMDT 1 92177 (FAA)
TAKE-OFF MINIMUMS: **Rwy 16,** 300-1. **Rwys 4, 22,** NA.

WILLISTON, ND
SLOULIN FIELD INTL (ISN)
AMDT 3 00251 (FAA)
TAKE-OFF MINIMUMS: **Rwy 29,** 300-1or std. with a min. climb of 270' per NM to 2300.
DEPARTURE PROCEDURE: **Rwy 20,** climb runway heading to 2300 before turning westbound.

WILLMAR, MN
WILLMAR MUNI-JOHN L. RICE FIELD (BDH)
ORIG 06327 (FAA)
NOTE: **Rwy 31,** tree 1338' from departure end of runway, 740' left of centerline, 67' AGL/1193' MSL.

WINNER, SD
WINNER RGNL (ICR)
AMDT 3 09127 (FAA)
TAKE-OFF MINIMUMS: **Rwys 3, 21,** NA-Environmental.

WINONA, MN
WINONA MUNI-MAX CONRAD FIELD (ONA)
AMDT 3 96228 (FAA)
TAKE-OFF MINIMUMS: **Rwy 12,** 300-1 or std. with a min. climb of 320' per NM to 800. **Rwy 17,** 600-1 or std. with a min. climb of 500' per NM to 1300. **Rwy 30,** 500-1 or std. with a min. climb of 500' per NM to 1200. **Rwy 35,** 700-1 or std. with a min. climb of 390' per NM to 1500.
DEPARTURE PROCEDURE: **Rwy 12,** climb to 1900 via ONA R-110 before turning. **Rwys 17, 30, 35,** climb runway heading to 1900 before turning.

WORTHINGTON, MN
WORTHINGTON MUNI (OTG)
AMDT 2 88154 (FAA)
TAKE-OFF MINIMUMS: **Rwy 17,** 300-1.
DEPARTURE PROCEDURE: **Rwys 11, 17, 29, 35,** when weather is below 800-1 climb runway heading to 2400 before turning.

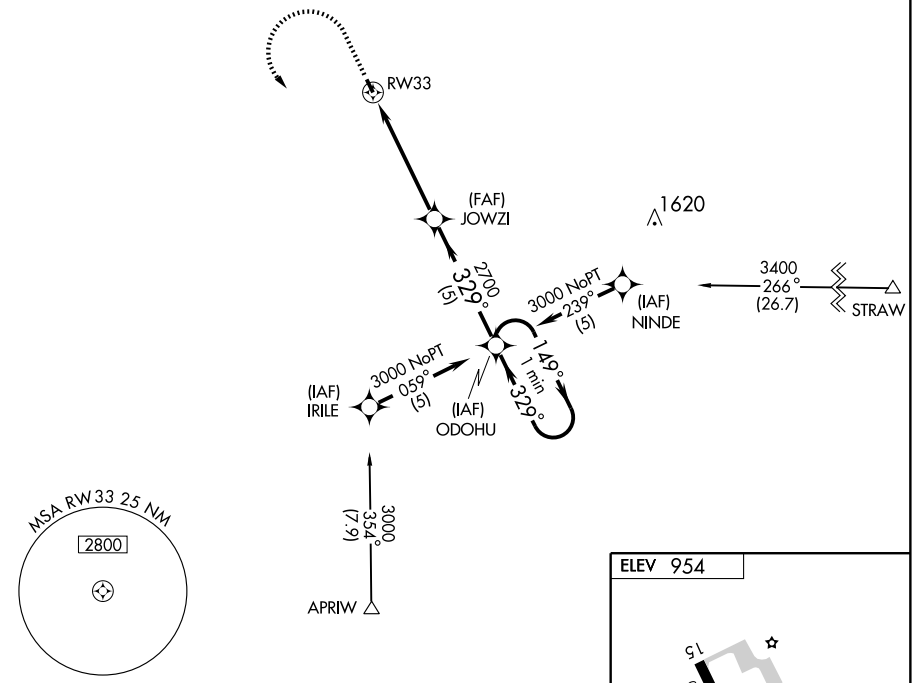
YANKTON, SD
CHAN GURNEY MUNI (YKN)
AMDT 2 85003 (FAA)
TAKE-OFF MINIMUMS: **Rwy 31,** 300-1.
DEPARTURE PROCEDURE: **Rwys 1, 13, 19, 31,** climb runway heading to 2400 before turning.

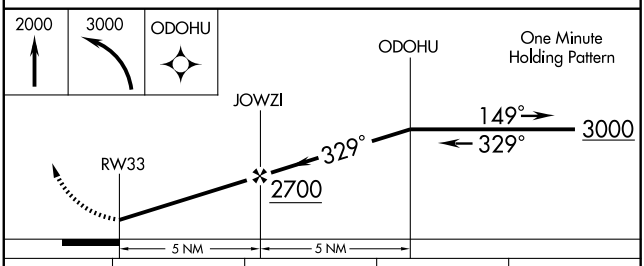
APP CRS	Rwy Idg	3103
329°	TDZE	954
	Apt Elev	954

GPS RWY 33

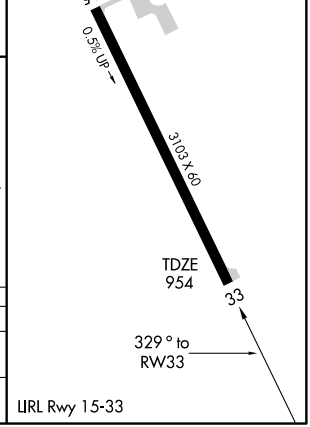
ADA/TWIN VALLEY/ NORMAN COUNTY ADA/TWIN VALLEY (DØØ)

NA	MISSED APPROACH: Climb to 2000, then climbing left turn to 3000 direct ODOHU WP and hold.
Use Hector Intl, ND altimeter setting.	
FARGO APP CON* 120.4 377.15	CTAF 122.9





CATEGORY	A	B	C	D
S-33	1480-1	526 (600-1)	1480-1½ 526 (600-1½)	NA
CIRCLING	1480-1	526 (600-1)	1480-1½ 526 (600-1½)	NA



NC-1, 03 JUN 2010 to 01 JUL 2010

NDB AIT	APP CRS	Rwy Idg	4018
397	165°	TDZE	1205
		Apt Elev	1205

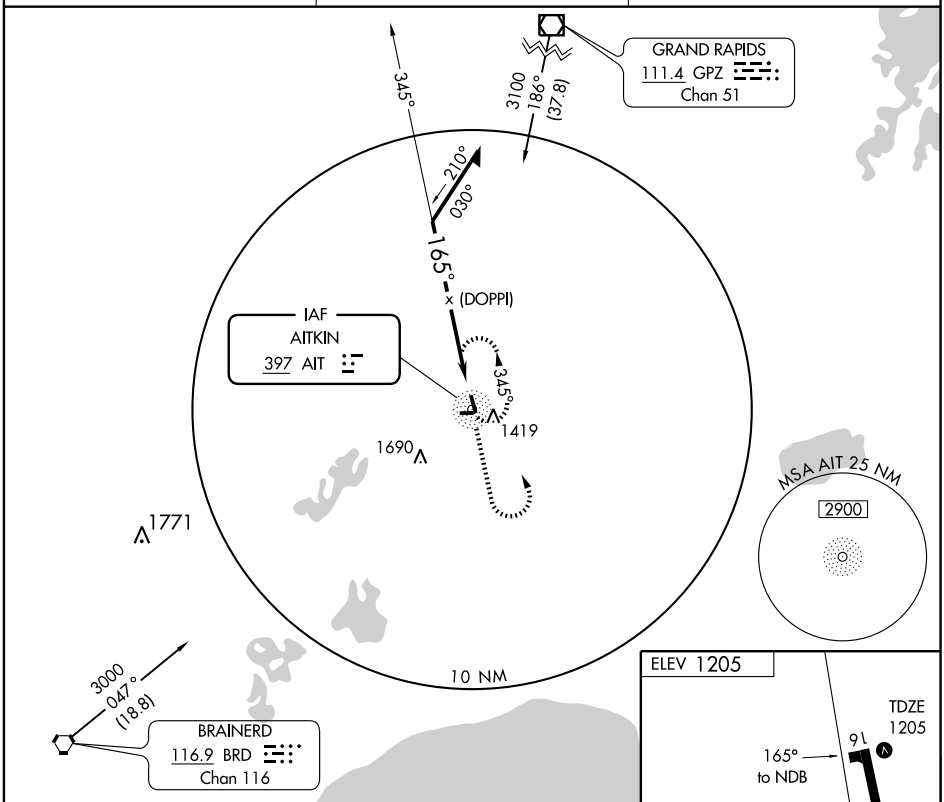
NDB or GPS RWY 16

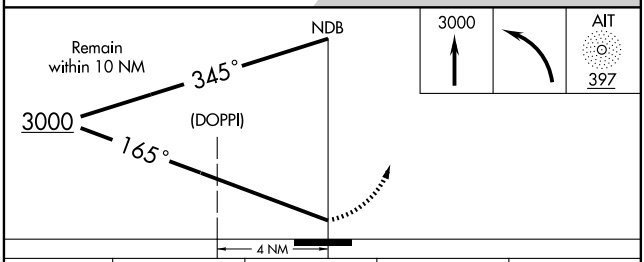
AITKIN MUNI-STEVE KURTZ FIELD (AIT)

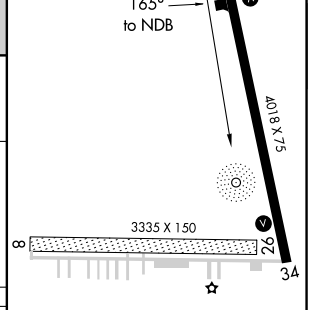
NA

MISSED APPROACH: Climb to 3000 then left turn direct AIT NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.675	118.05 239.0	123.05 (CTAF) L







CATEGORY	A	B	C	D
S-16	1840-1	635 (700-1)	1840-1¾ 635 (700-1¾)	NA
CIRCLING	1840-1	635 (700-1)	1840-1¾ 635 (700-1¾)	NA

REIL Rwys 16 and 34 L
MIRL Rwy 16-34 L

NC-1. 03 JUN 2010 to 01 JUL 2010

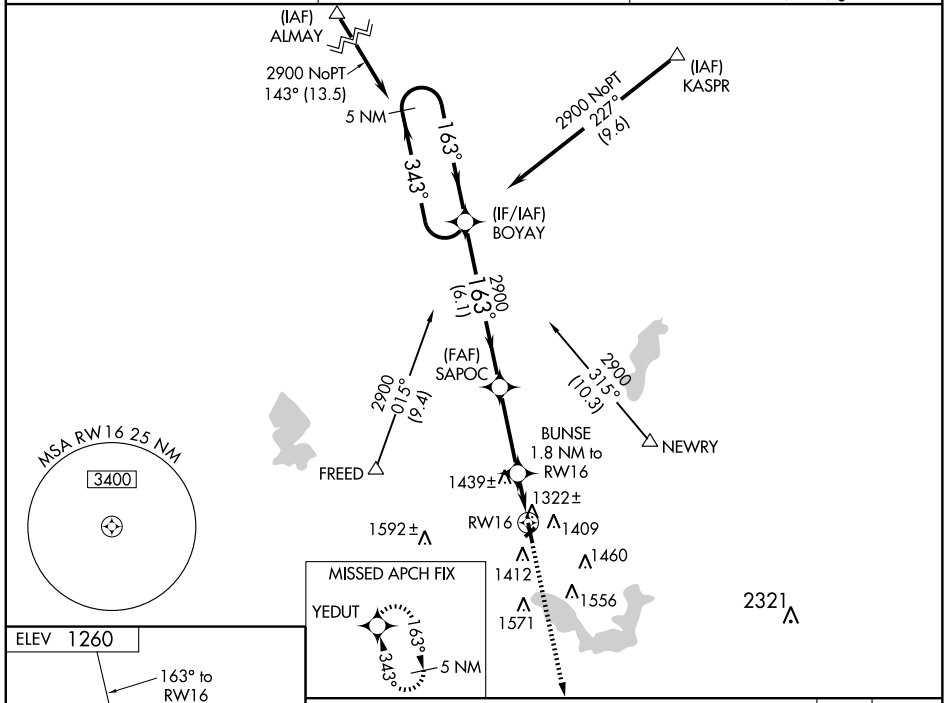
WAAS	APP CRS	Rwy Idg	4501
CH 49204	163°	TDZE	1260
W16A		Apt Elev	1260

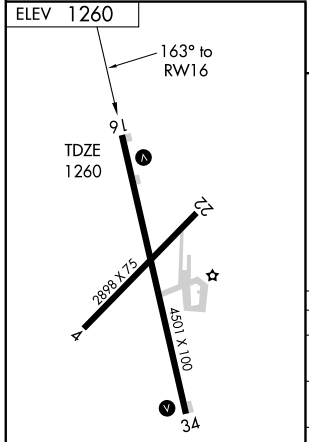
RNAV (GPS) RWY 16
ALBERT LEA MUNI (AEL)

Baro-VNAV NA when using Austin Muni altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). Visibility reduction for helicopters NA.
If local altimeter setting not received, use Austin Muni altimeter setting and increase all DAs 48 feet and all MDAs 60 feet.
VDP NA when using Austin Muni altimeter setting. DME/DME RNP-0.3 NA.

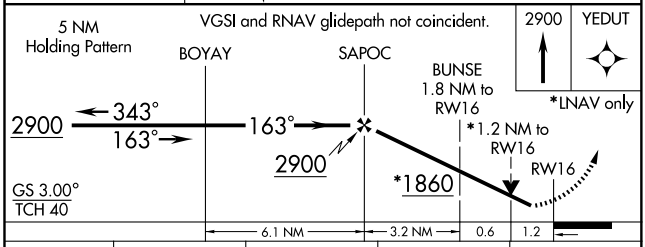
MISSED APPROACH: Climb to 2900 direct YEDUT and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
109.8	119.8 251.125	123.0 (CTAF) L





MIRL Rwy 16-34 L
REIL Rwys 16 and 34 L



CATEGORY	A	B	C	D
LPV DA	1510-1 250 (300-1)			
LNAV/VNAV DA	1592-1¼ 332 (400-1¼)			
LNAV MDA	1700-1 440 (500-1)		1700-1¼ 440 (500-1¼)	1700-1½ 440 (500-1½)
CIRCLING	1780-1 520 (600-1)		1780-1½ 520 (600-1½)	1820-2 560 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4501
343°	TDZE	1256
	Apt Elev	1259

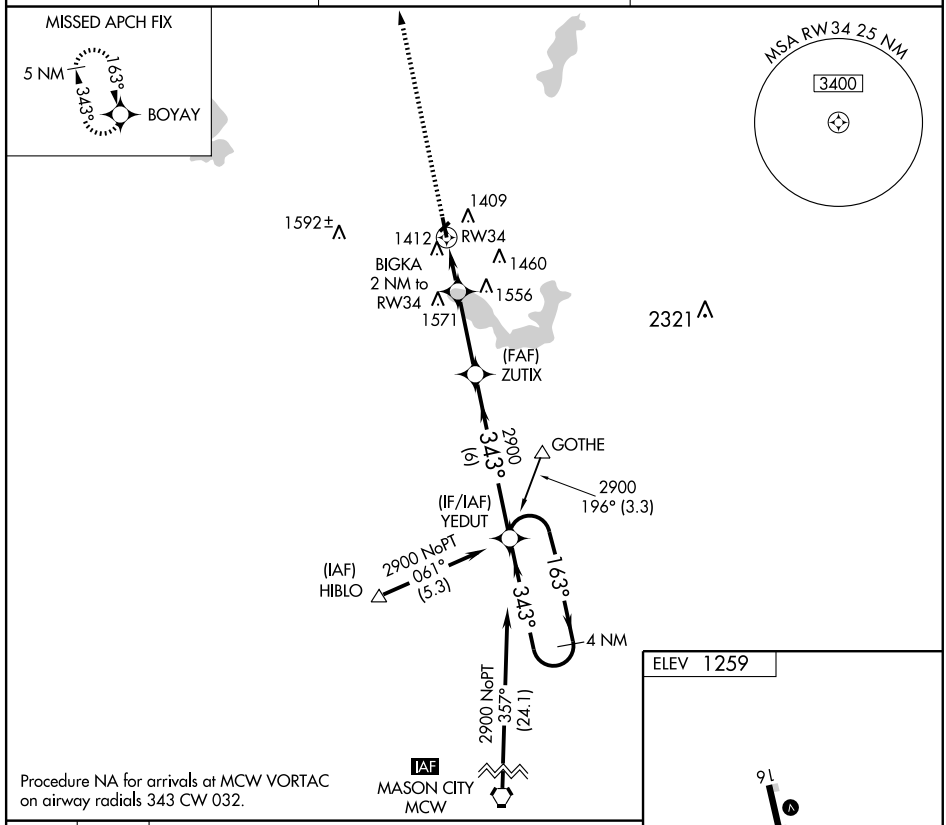
RNAV (GPS) RWY 34
ALBERT LEA MUNI (AEL)

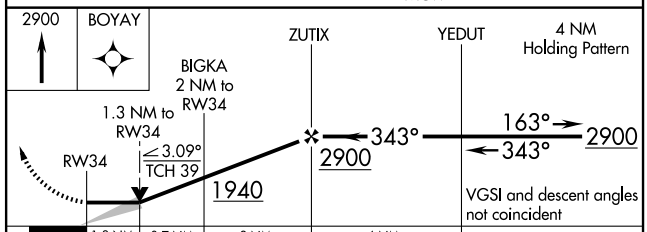
T
A NA

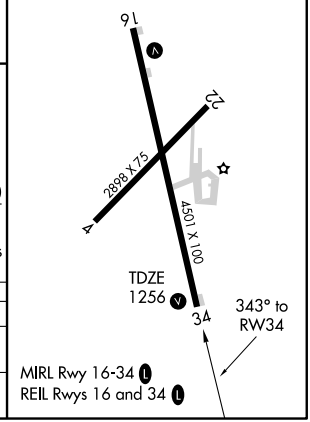
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.
IAF ARM APPROACH MODE PRIOR TO IAF.

MISSED APPROACH: Climb to 2900 direct BOYAY WP and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
109.8	119.8 251.125	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1720-1 464 (500-1)		1720-1¼ 464 (500-1¼)	1720-1½ 464 (500-1½)
CIRCLING	1780-1 521 (600-1)		1780-1½ 521 (600-1½)	1820-2 561 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

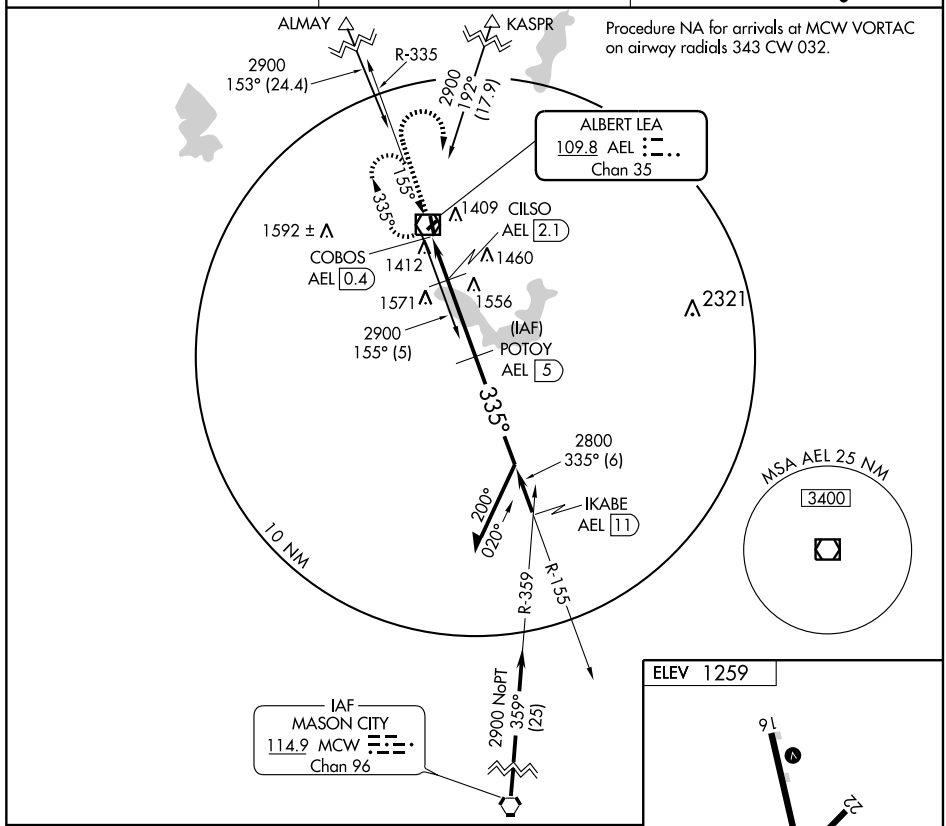
VOR/DME AEL	APP CRS	Rwy Idg	4501
109.8	335°	TDZE	1256
Chan 35		Apt Elev	1259

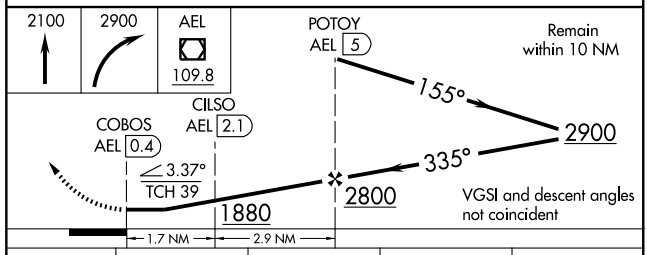
VOR/DME RWY 34
ALBERT LEA MUNI (AEL)

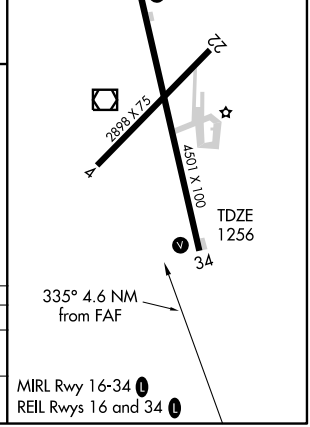
NA

MISSED APPROACH: Climb to 2100 then climbing right turn to 2900 direct AEL VOR/DME and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
109.8	119.8 251.125	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-34	1720-1 464 (500-1)		1720-1¼ 464 (500-1¼)	1720-1½ 464 (500-1½)
CIRCLING	1780-1 521 (600-1)		1780-1½ 521 (600-1½)	1820-2 561 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

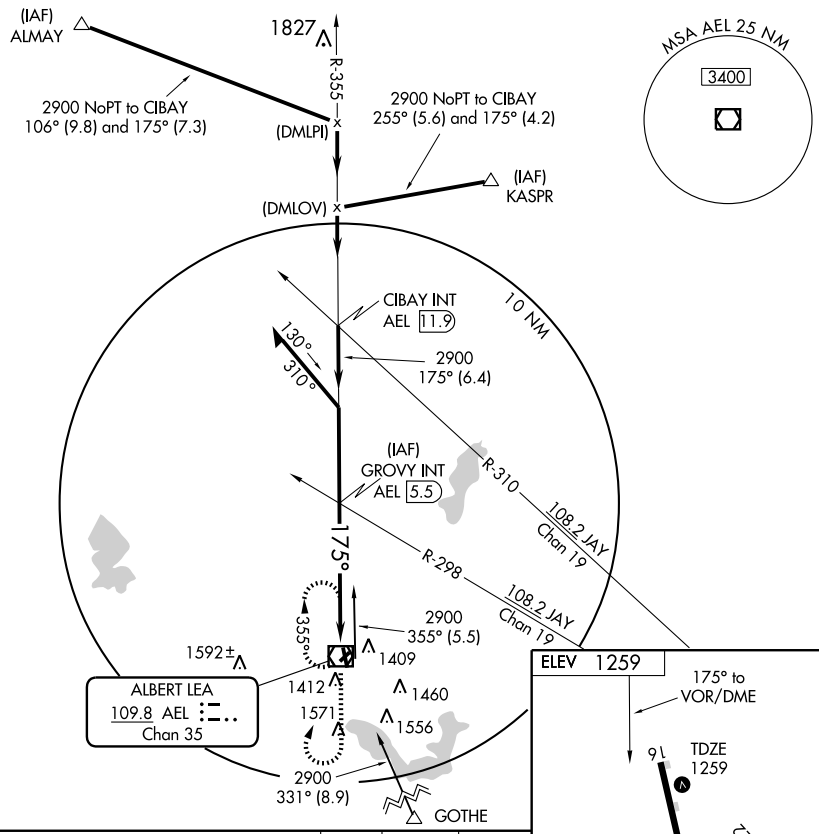
VOR/DME AEL	APP CRS	Rwy Idg	4501
109.8	175°	TDZE	1259
Chan 35		Apt Elev	1259

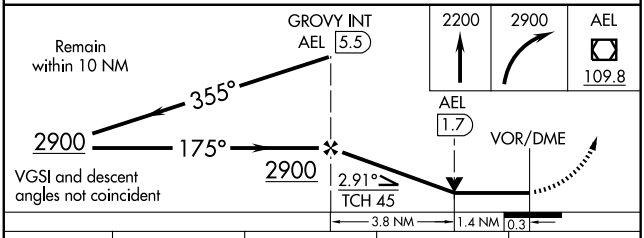
VOR RWY 16
ALBERT LEA MUNI (AEL)

NA

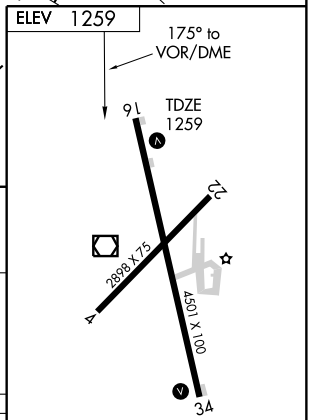
MISSED APPROACH: Climb to 2200 then climbing right turn to 2900 direct AEL VOR/DME and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
109.8	119.8 251.125	123.0 (CTAF) L





CATEGORY	A	B	C	D
S-16	1720-1 461 (500-1)		1720-1¼ 461 (500-1¼)	1720-1½ 461 (500-1½)
CIRCLING	1780-1 521 (600-1)		1780-1½ 521 (600-1½)	1820-2 561 (600-2)



MIRL Rwy 16-34 L
REIL Rwys 16 and 34 L

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-EEZ	APP CRS	Rwy Idg	5100
110.5	315°	TDZE	1423
		Apt Elev	1424

ILS or LOC RWY 31

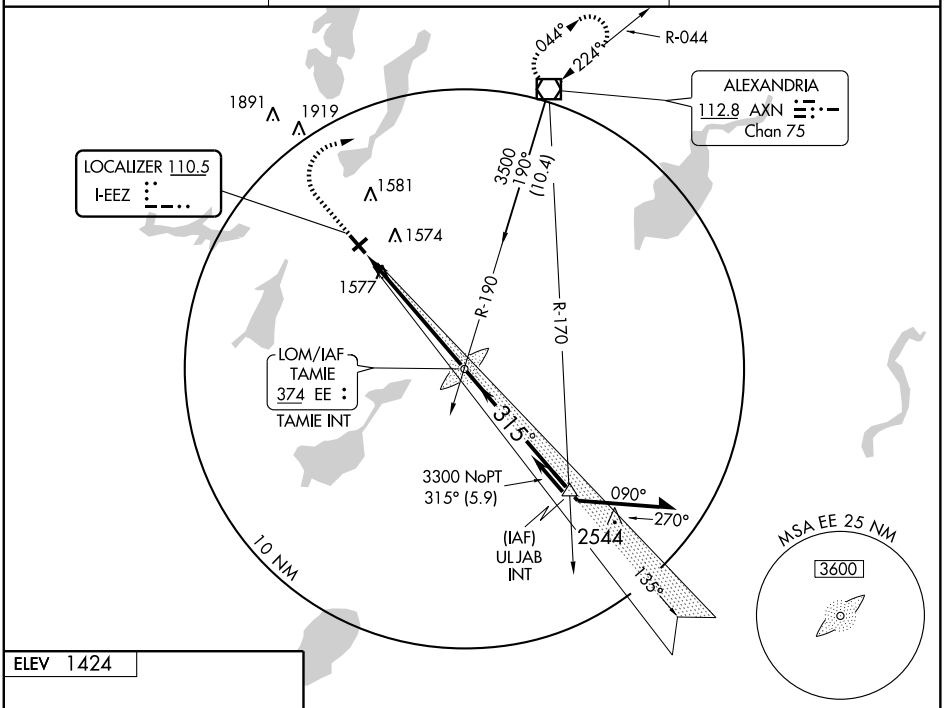
ALEXANDRIA/CHANDLER FIELD (AXN)

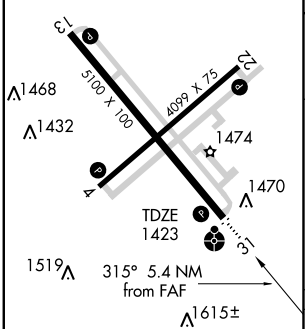
T NA — Inoperative table does not apply to S-LOC 31 Category C.

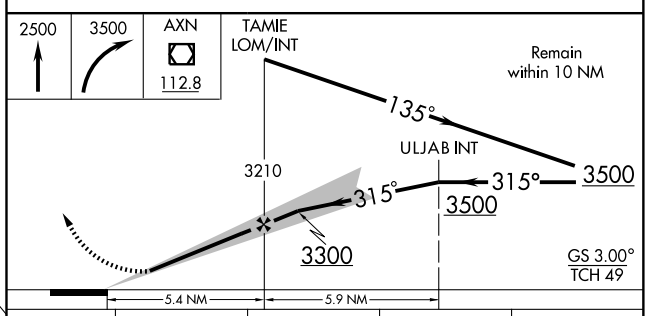
ODALS

MISSED APPROACH: Climb to 2500 then climbing right turn to 3500 direct AXN VOR/DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	126.1 269.2	123.0 (CTAF) L







REIL Rwys 4,13 and 22 L
MIRL Rwys 4-22 and 13-31 L

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

CATEGORY	A	B	C	D
S-ILS 31	1623-¾ 200 (200-¾)			
S-LOC 31	1840-¾ 417 (500-¾)		1840-1¼ 417 (500-1¼)	
CIRCLING	1920-1 496 (500-1)		1920-1½ 496 (500-1½)	1980-2 556 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	4099
CH 48917	225°	TDZE	1424
W22A		Apt Elev	1425

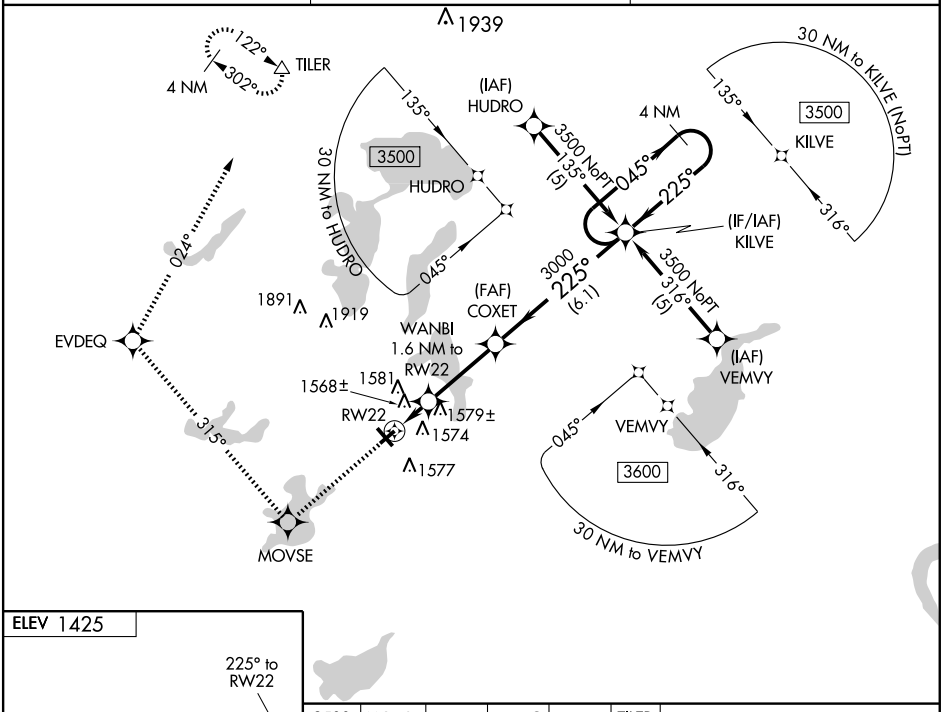
RNAV (GPS) RWY 22

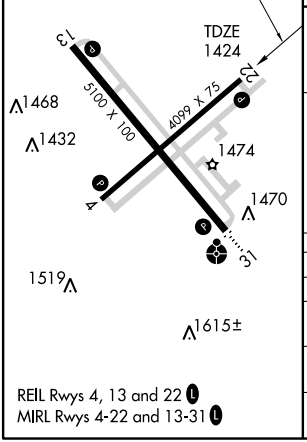
ALEXANDRIA/CHANDLER FIELD (AXN)

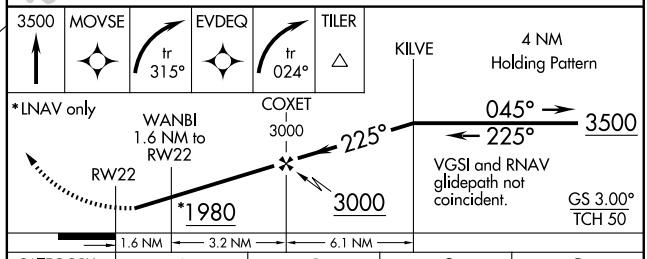
Baro-VNAV NA when using Glenwood altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Glenwood altimeter setting and increase all DA 37 feet and all MDA 40 feet, increase LNAV/VNAV all Cats and LNAV Cat D visibility ¼ mile.

MISSED APPROACH: Climb to 3500 direct MOVSE and right turn on track 315° to EVDEQ and on track 024° to TILER and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	126.1 269.2	123.0 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1677-1 253 (300-1)			
LNAV/VNAV DA	1880-1½ 456 (500-1½)			
LNAV MDA	1840-1 416 (500-1)		1840-1¼ 416 (500-1¼)	
CIRCLING	1920-1 495 (500-1)		1920-1½ 495 (500-1½)	1980-2 555 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 61007 W31A	APP CRS 315°	Rwy Idg 5100 TDZE 1423 Apt Elev 1424

RNAV (GPS) RWY 31

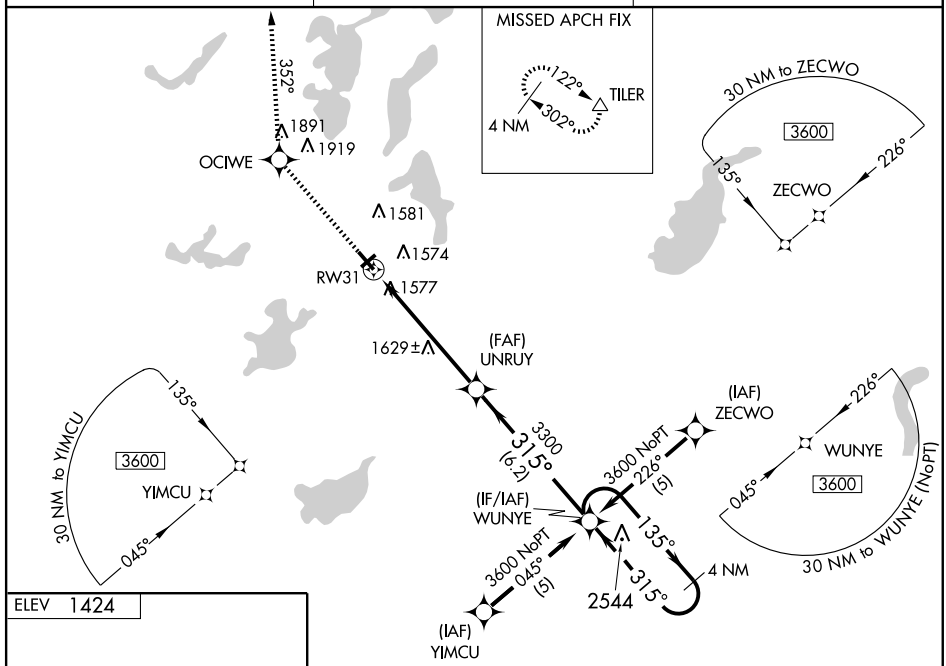
ALEXANDRIA/ CHANDLER FIELD (AXN)

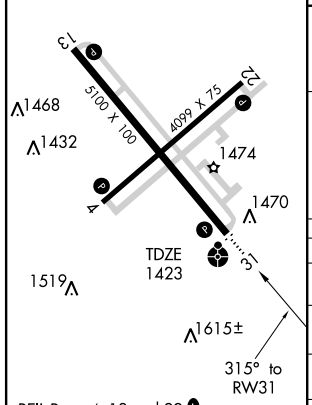
Inoperative table does not apply to LPV & LNAV/VNAV Cats A/B/C and LNAV Cat C. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP -0.3 NA. VDP and Baro-VNAV NA when using Glenwood altimeter setting. When local altimeter setting not received, use Glenwood altimeter setting and increase all DAs/MDAs 40 feet and increase LPV and LNAV/VNAV visibilities ¼ mile all Cats.

ODALS

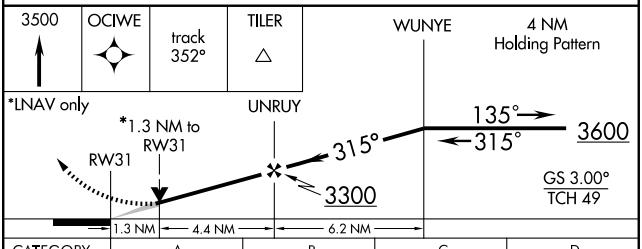
MISSED APPROACH: Climb to 3500 direct OCIWE and via 352° track to TILER and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	126.1 269.2	123.0 (CTAF) L





REIL Rwys 4, 13 and 22 L
MIRL Rwys 4-22 and 13-31 L



CATEGORY	A	B	C	D
LPV DA	1815-1¼ 392 (400-1¼)			
LNAV/VNAV DA	1885-1½ 462 (500-1½)			
LNAV MDA	1880-¾ 457 (500-¾)		1880-1¼ 457 (500-1¼)	1880-1½ 457 (500-1½)
CIRCLING	1920-1 496 (500-1)		1920-1½ 496 (500-1½)	1980-2 556 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

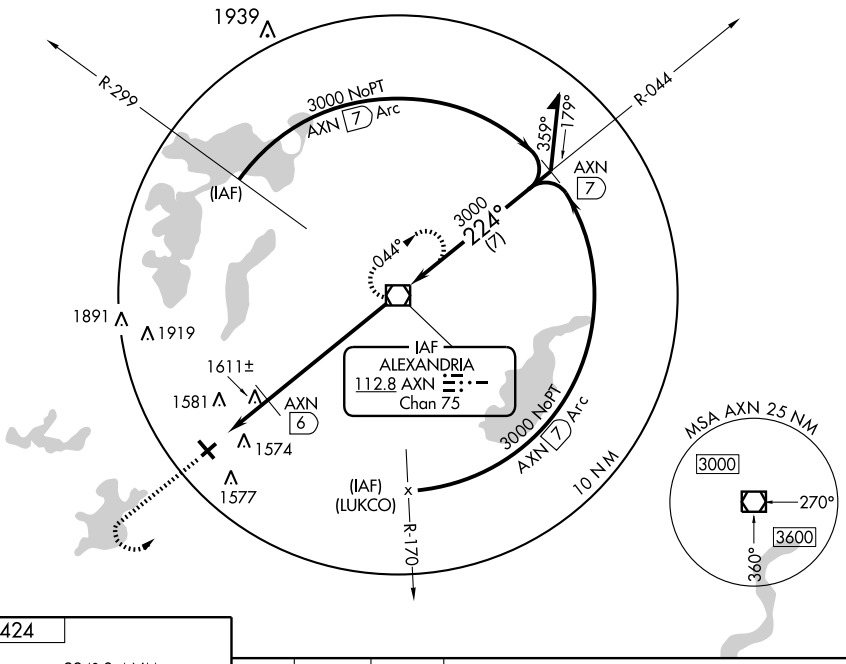
VOR/DME AXN	APP CRS	Rwy Idg	4099
112.8	224°	TDZE	1423
Chan 75		Apt Elev	1424

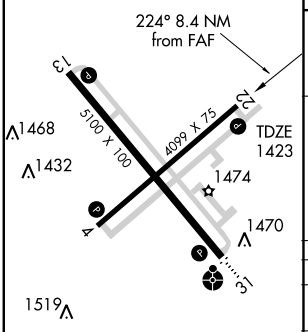
VOR RWY 22

ALEXANDRIA/CHANDLER FIELD (AXN)

MISSED APPROACH: Climb to 2500 then climbing left turn to 3000 direct to AXN VOR/DME and hold.

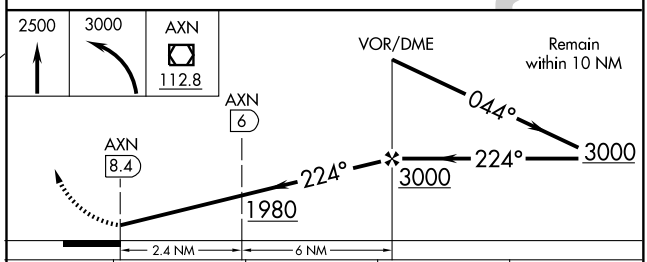
ASOS	MINNEAPOLIS CENTER	UNICOM
118.375	126.1 269.2	123.0 (CTAF) L





REIL Rwys 4, 13 and 22 L
MIRL Rwys 4-22 and 13-31 L

FAF to MAP 8.4 NM					
Knots	60	90	120	150	180
Min:Sec	8:24	5:36	4:12	3:22	2:48



CATEGORY	A	B	C	D
S-22	1980-1 557 (600-1)		1980-1 ½ 557 (600-1½)	1980-1¾ 557 (600-1¾)
CIRCLING	1980-1 556 (600-1)		1980-1 ½ 556 (600-1½)	1980-2 556 (600-2)
DME MINIMUMS				
S-22	1880-1 457 (500-1)		1880-1 ¼ 457 (500-1¼)	1880-1½ 457 (500-1½)
CIRCLING	1920-1 496 (500-1)		1920-1 ½ 496 (500-1½)	1980-2 556 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

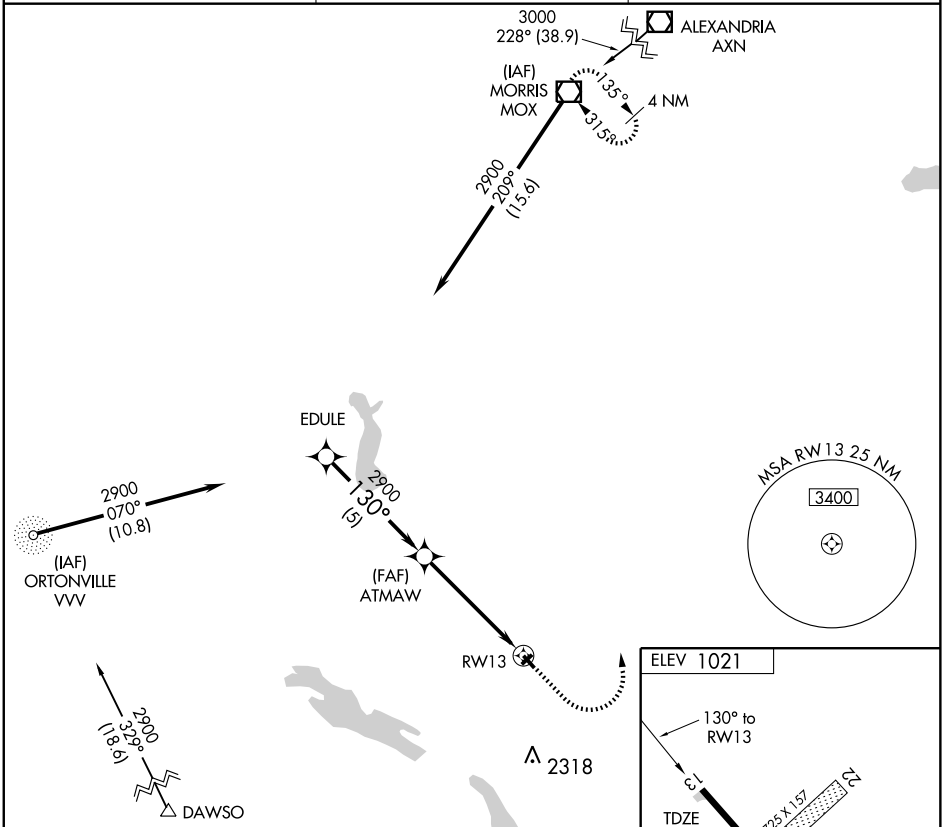
APP CRS	Rwy Idg	3500
130°	TDZE	1021
	Apt Elev	1021

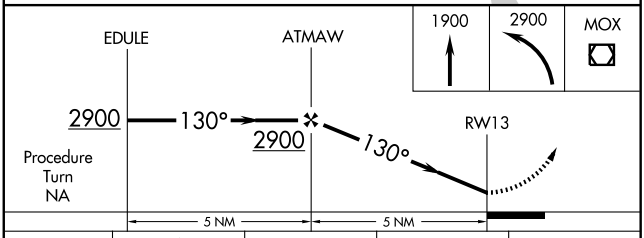
GPS RWY 13
APPLETON MUNI (AQP)

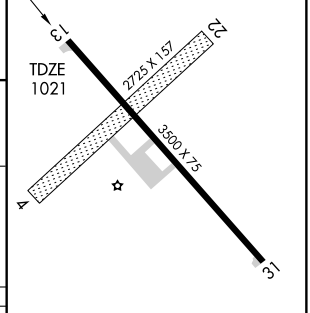
NA

MISSED APPROACH: Climb to 1900, then climbing left turn to 2900 direct MOX VOR/DME and hold.

AWOS-3	PRINCETON RADIO	CTAF
356	122.45	122.9 L







CATEGORY	A	B	C	D
S-13	1480-1	459 (500-1)	1480-1¼ 459 (500-1¼)	NA
CIRCLING	1480-1	459 (500-1)	1480-1½ 459 (500-1½)	NA

MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

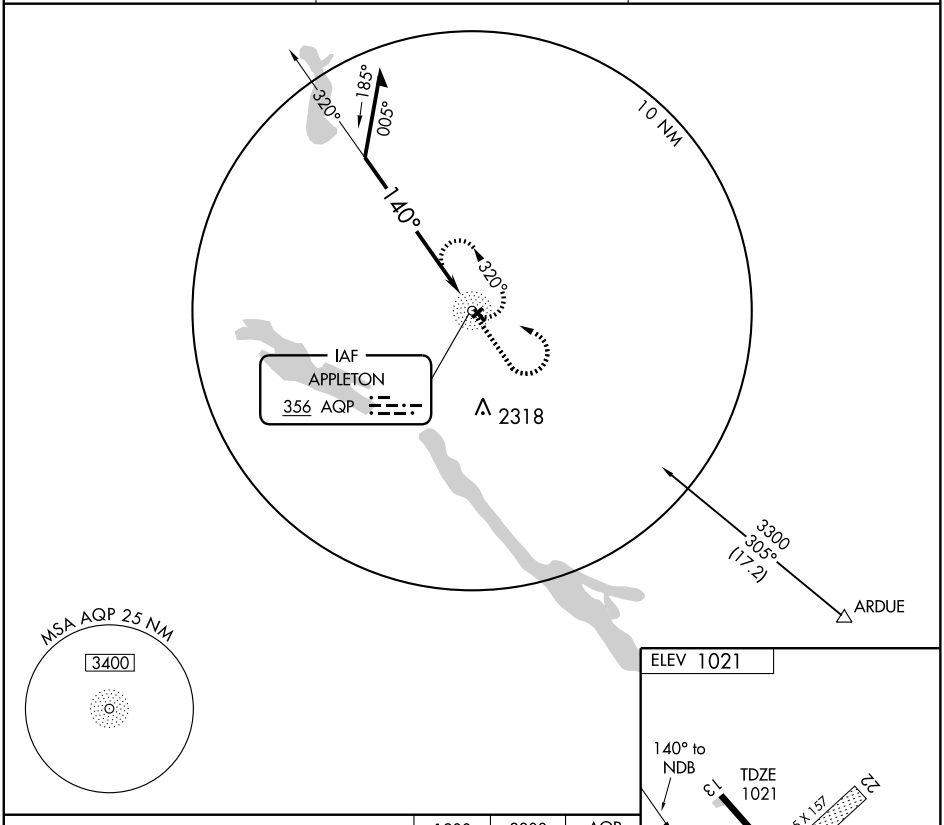
NDB AQP	APP CRS		
356	140°	Rwy Idg	3500
		TDZE	1021
		Apt Elev	1021

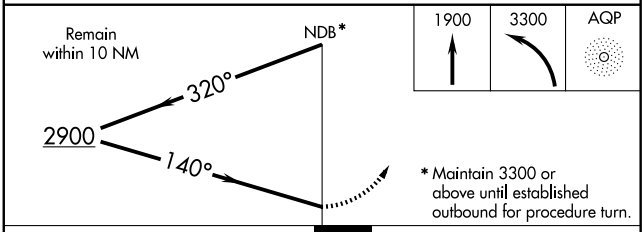
NDB RWY 13
APPLETON MUNI (AQP)

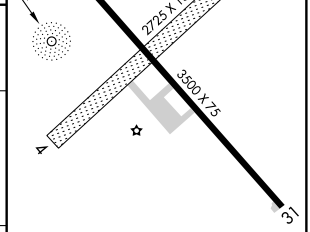
NA

MISSED APPROACH: Climb to 1900 then climbing left turn to 3300 direct AQP NDB and hold.

AWOS-3	PRINCETON RADIO	CTAF
356	122.45	122.9 L







CATEGORY	A	B	C	D
S-13	1600-1	579 (600-1)	1600-1½ 579 (600-1½)	NA
CIRCLING	1600-1	579 (600-1)	1600-1½ 579 (600-1½)	NA

MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-AUM	APP CRS	Rwy Idg	5800
110.55	351°	TDZE	1234
		Apt Elev	1234

ILS or LOC RWY 35

AUSTIN MUNI (AUM)

T NA — Inoperative table does not apply to S-ILS 35 when using local altimeter setting. When local altimeter setting not received, use Albert Lea altimeter setting and increase DA to 1532 feet and all MDAs 60 feet, increase S-LOC 35 Cat C/D visibility ¼ mile. Visibility reduction by helicopters NA. For inoperative MALSR, increase S-LOC 35 Cat A/B visibility to 1 mile, when using Albert Lea altimeter setting increase S-LOC 35 Cat A/B visibility to 1 mile.

MALSR (A5)

MISSED APPROACH: Climb to 1800 then climbing right turn to 3800 via heading 150° and MCW VORTAC R-034 to FARUN INT and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
119.025	119.8 251.125	122.7 (CTAF) L

ROCHESTER 112.0 RST Chan 57

LOCALIZER 110.55 I-AUM

1477 1583 1649 1387 10 NM

3800 to FARUN 210° (22.9)

AUSTIN 108.2 JAY Chan 19

2321 R-103 R-223 R-116

109.8 AEL Chan 35

DACAB INT

2900 (6.2) 351° R-034

ALTERNATE MISSED APCH FIX

ROCHESTER RST 112.0 Chan 57

R-205 025° 205°

Procedure NA for arrivals at MCW VORTAC on airway radials 343 CW 075.

IAF MASON CITY 114.9 MCW Chan 96

(IF/IAF) FARUN INT

171° 351° 1 min

3800 NoPT 034° (29.5)

2828 MSA JAY 25 NM 210° 3400 3800 030°

ELEV 1234 HIRL Rwy 17-35 L REIL Rwy 17 L

17L 5800 X 100

TDZE 1234 P 35 A5

351° 5 NM from FAF

FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

1800	3800	MCW R-034	FARUN INT
↑	150°		

FARUN INT — One Minute Holding Pattern

VGSI and ILS glidepath not coincident.

DACAB INT 2900 351° 171° 351° 3800 2900

GS 3.00° TCH 48

5 NM 6.2 NM

CATEGORY	A	B	C	D
S-ILS 35	1484- ¾ 250 (300-¾)			
S-LOC 35	1700- ¾ 466 (500-¾)			1700-1 466 (500-1)
CIRCLING	1740-1 506 (600-1)		1740-1½ 506 (600-1½)	1800-2 566 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	5800
169°	TDZE	1231
	Apt Elev	1234

RNAV (GPS) RWY 17

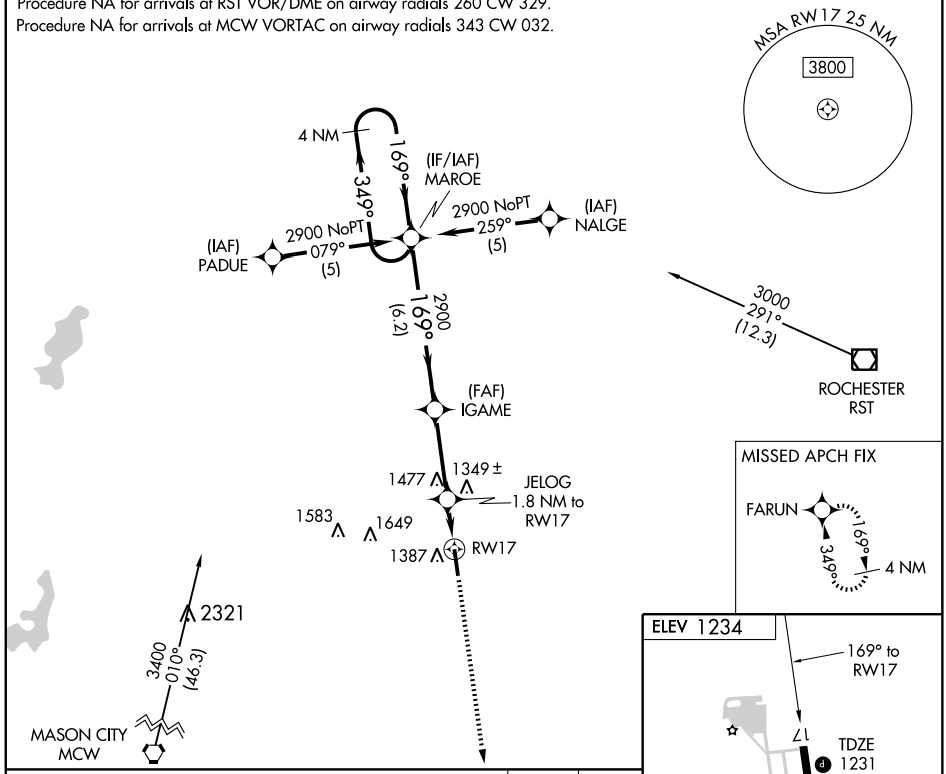
AUSTIN MUNI (AUM)

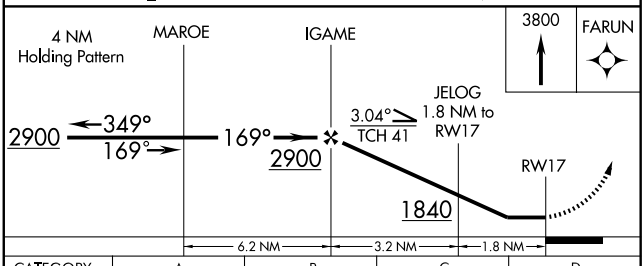
DME/DME RNP -0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Albert Lea altimeter setting and increase all MDAs 60 feet, and LNAV Cat C/D visibility ¼ mile.

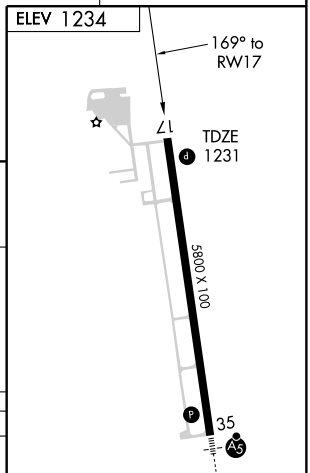
MISSED APPROACH: Climb to 3800 direct FARUN and hold.

AWOS-3	ROCHESTER APP CON★	UNICOM
119.025	119.8 251.125	122.7 (CTAF) L

Procedure NA for arrivals at RST VOR/DME on airway radials 260 CW 329.
Procedure NA for arrivals at MCW VORTAC on airway radials 343 CW 032.







CATEGORY	A	B	C	D
LNAV MDA	1700-1	469 (500-1)	1700-1¼ 469 (500-1¼)	1700-1½ 469 (500-1½)
CIRCLING	1740-1	506 (600-1)	1740-1½ 506 (600-1½)	1800-2 566 (600-2)

HIRL Rwy 17-35 L
REIL Rwy 17 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	5800
CH 99506	349°	TDZE	1234
W35A		Apt Elev	1234

RNAV (GPS) RWY 35

AUSTIN MUNI (AUM)

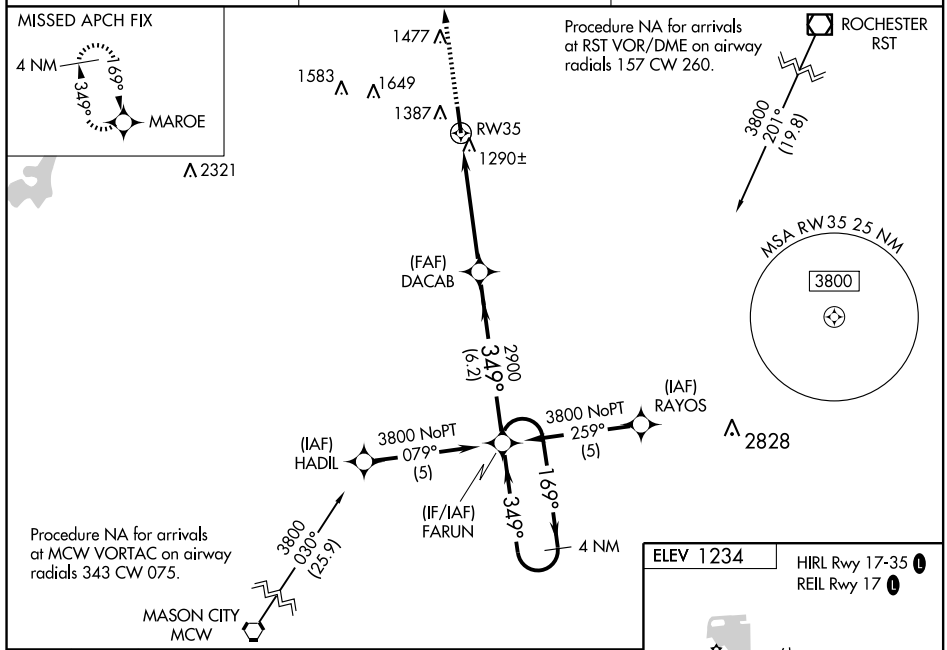
T
A

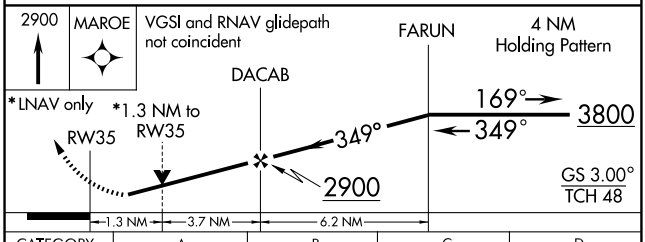
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (115°F).
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
Baro-VNAV and VDP NA when using Albert Lea altimeter setting. When local altimeter setting not received, use Albert Lea altimeter setting and increase all DAs 48 feet and all MDAs 60 feet, increase LNAV/VNAV visibility ¼ mile all Cats, and LNAV Cat C/D visibility ¼ mile.
For inoperative MALSR, when using Albert Lea altimeter setting, increase LPV visibility to 1¼ mile all Cats.

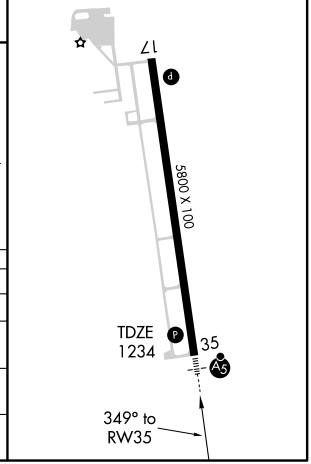
MALSR

MISSED APPROACH: Climb to 2900 direct MAROE and hold.

AWOS-3	ROCHESTER APP CON *	UNICOM
119.025	119.8 251.125	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1527-¾ 293 (300-¾)			
LNAV/VNAV DA	1578-¾ 344 (400-¾)			
LNAV MDA	1700-¾ 466 (500-¾)			1700-1 466 (500-1)
CIRCLING	1740-1 506 (600-1)		1740-1½ 506 (600-1½)	1800-2 566 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME RST	APP CRS	Rwy Idg	N/A
112.0	240°	TDZE	N/A
Chan 57		Apt Elev	1234

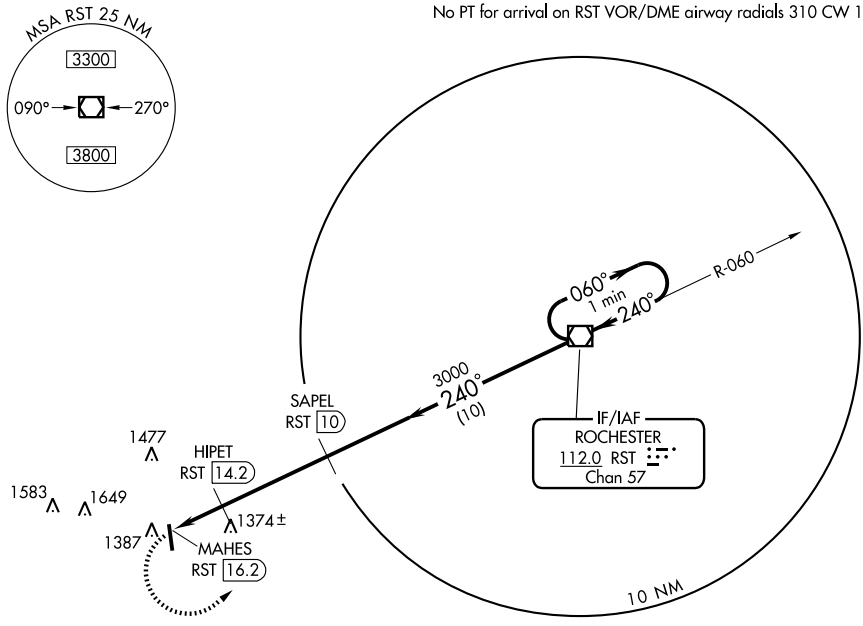
VOR/DME-A
AUSTIN MUNI (AUM)

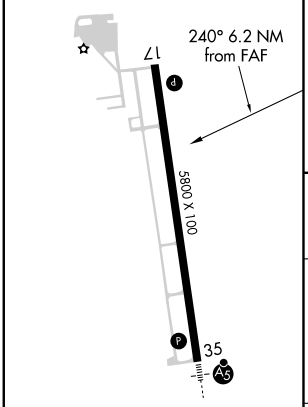
When local altimeter setting not received, use Albert Lea altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climbing left turn to 3000 direct RST VOR/DME and hold.

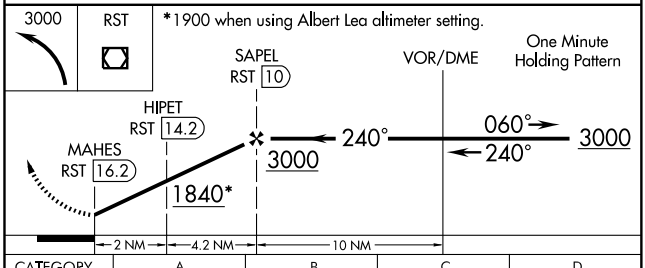
AWOS-3	ROCHESTER APP CON*	UNICOM
119.025	119.8 251.125	122.7 (CTAF) L

No PT for arrival on RST VOR/DME airway radials 310 CW 168.





HIRL Rwy 17-35 L
REIL Rwy 17 L



CATEGORY	A	B	C	D
CIRCLING	1740-1	506 (600-1)	1740-1½ 506 (600-1½)	1800-2 566 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

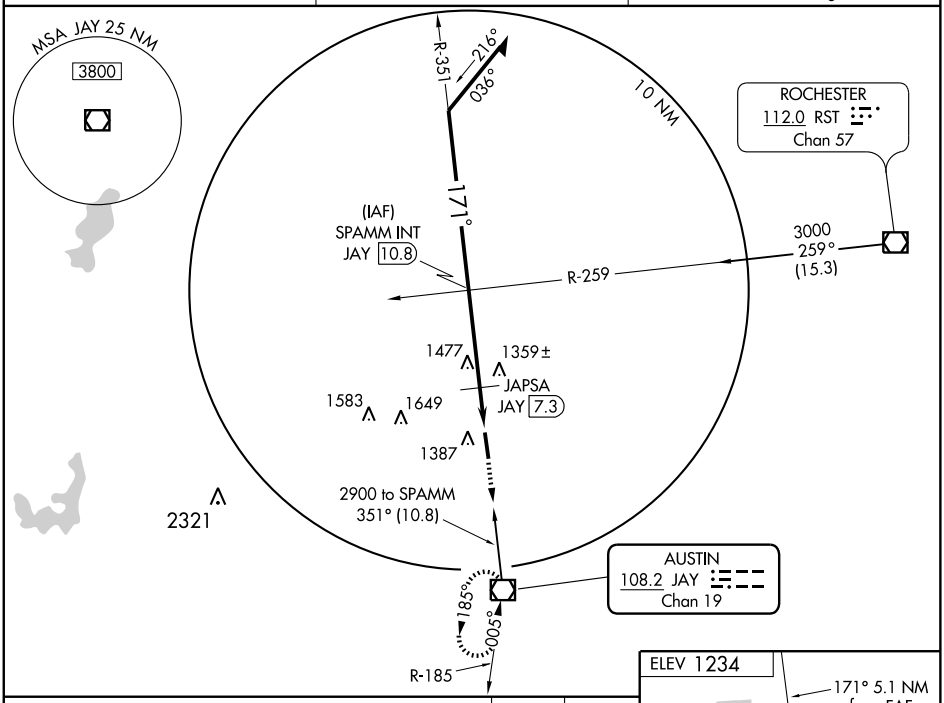
VOR/DME JAY	APP CRS	Rwy Idg	5800
108.2	171°	TDZE	1231
Chan 19		Apt Elev	1234

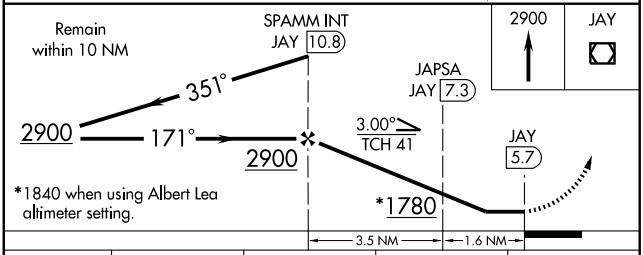
VOR RWY 17
AUSTIN MUNI (AUM)

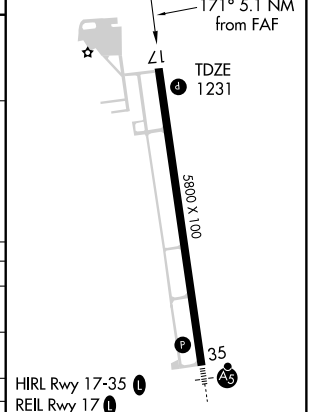
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Albert Lea altimeter setting and increase all MDAs 60 feet, and S-17 Cat. C/D and circling Cat. C visibility ¼ mile. Increase JAPSA FIX MINIMUMS S-17 Cat. C/D visibility ¼ mile.

MISSED APPROACH: Climb to 2900 direct JAY VOR/DME and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
119.025	119.8 251.125	122.7 (CTAF) L







CATEGORY	A	B	C	D
S-17	1780-1 549 (600-1)		1780-1½ 549 (600-1½)	1780-1¾ 549 (600-1¾)
CIRCLING	1780-1 546 (600-1)		1780-1½ 546 (600-1½)	1800-2 566 (600-2)
JAPSA FIX MINIMUMS				
S-17	1620-1 389 (400-1)			1620-1¼ 389 (400-1¼)
CIRCLING	1740-1 506 (600-1)		1740-1½ 506 (600-1½)	1800-2 566 (600-2)

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME JAY	APP CRS	Rwy Idg	5800
108.2	351°	TDZE	1234
Chan 19		Apt Elev	1234

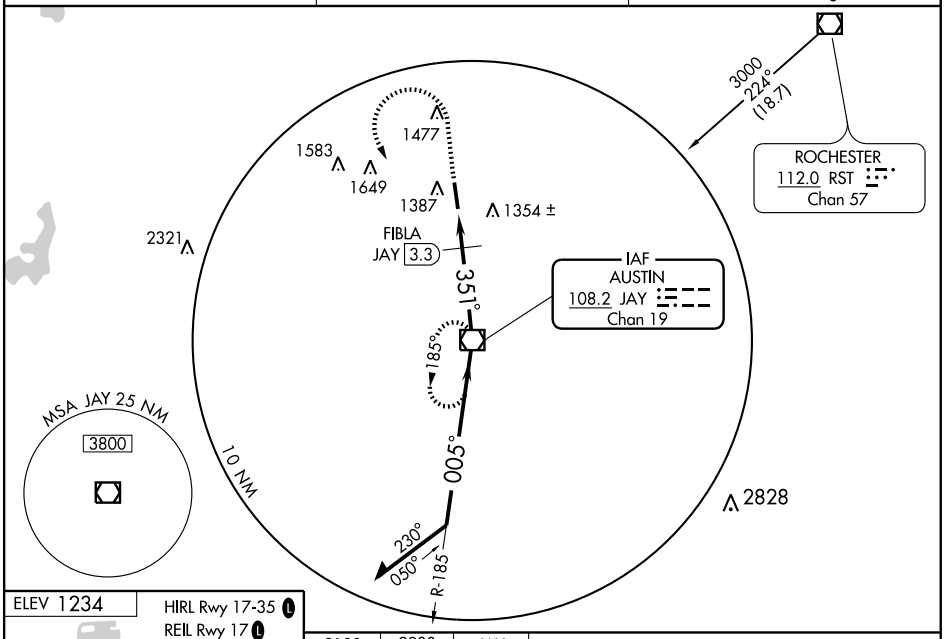
VOR RWY 35
AUSTIN MUNI (AUM)

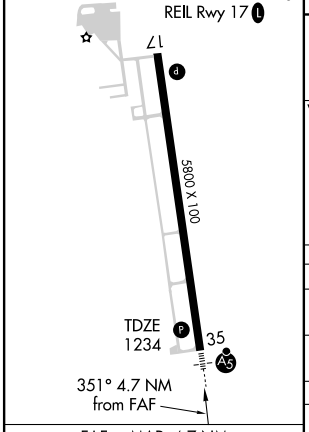
T NA — Visibility reduction by helicopters NA.
When local altimeter setting not received, use Albert Lea altimeter setting and increase all MDAs 60 feet, and S-35 Cats C/D visibility ¼ mile.
For inoperative MALSR, increase S-35 Cats A/B visibility to 1 mile and FIBLA FIX MINIMUMS S-35 Cats A/B/C visibility to 1 mile and Cat D to 1¼ mile, when using Albert Lea altimeter setting increase S-35 Cats A/B and FIBLA FIX MINIMUMS S-35 Cats A/B visibility to 1 mile.

MALSR (A5)

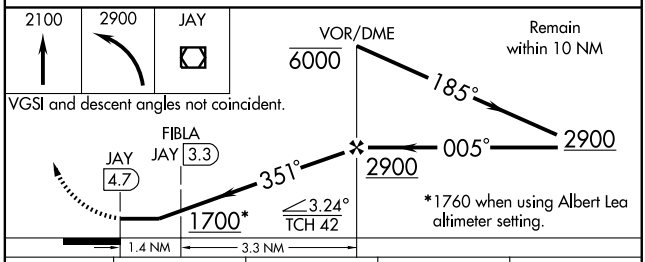
MISSED APPROACH: Climb to 2100 then climbing left turn to 2900 direct JAY VOR/DME and hold.

AWOS-3	ROCHESTER APP CON *	UNICOM
119.025	119.8 251.125	122.7 (CTAF) L





FAF to MAP 4.7 NM					
Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34



CATEGORY	A	B	C	D
S-35	1700- ¾ 466 (500-¾)			1700-1 466 (500-1)
CIRCLING	1740-1 506 (600-1)		1740-1½ 506 (600-1½)	1800-2 566 (600-2)
	FIBLA FIX MINIMUMS			
S-35	1620- ¾ 386 (400-¾)			1620-1 386 (400-1)
CIRCLING	1740-1 506 (600-1)		1740-1½ 506 (600-1½)	1800-2 566 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC BDE	APP CRS	Rwy Idg	5499
108.3	299°	TDZE	1085
		Apt Elev	1086

ILS or LOC/DME RWY 30

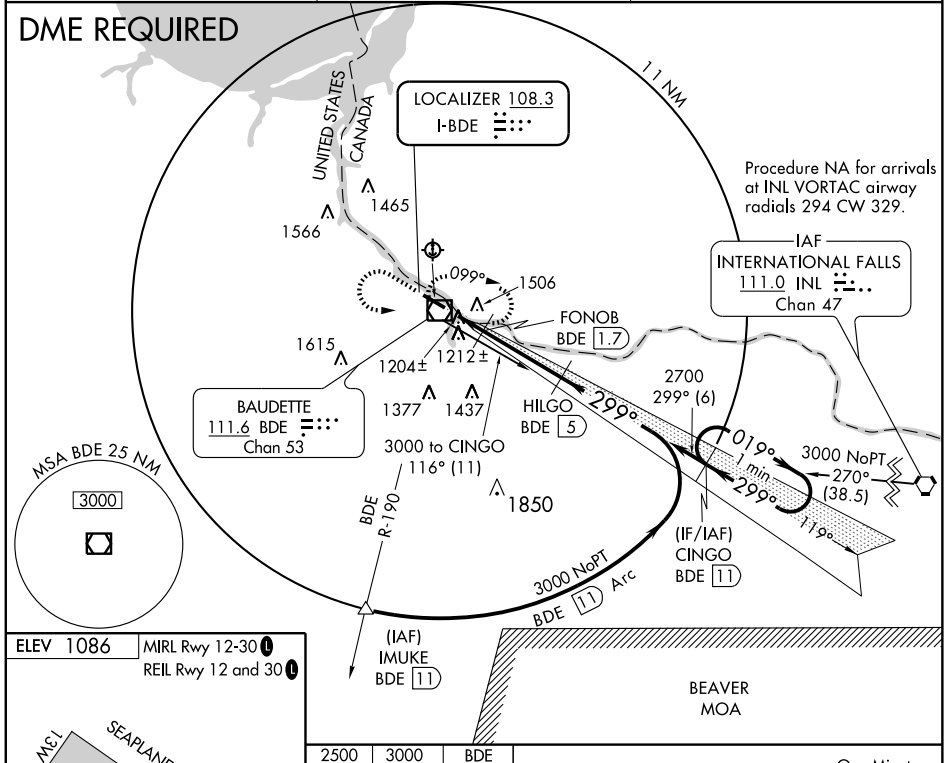
BAUDETTE INTL (BDE)

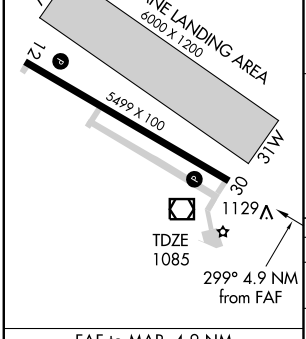
T NA — Visibility reduction by helicopters NA. When local altimeter setting not received, use Warroad altimeter setting and increase all DA 75 feet and all MDA 80 feet, increase S-ILS 30 all Cats visibility ½ mile, S-LOC 30 and Circling Cat C/D visibility ¼ mile. DME from BDE VOR/DME. Simultaneous reception of I-BDE and BDE DME required.

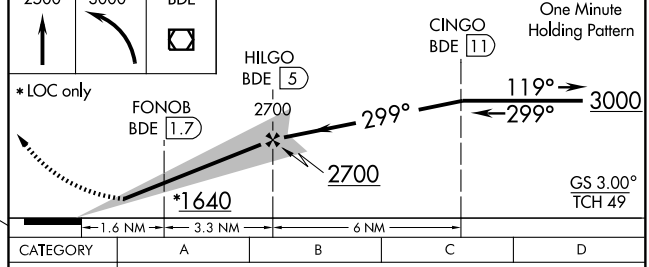
MISSED APPROACH: Climb to 2500 then climbing left turn to 3000 direct BDE VOR/DME and hold.

ASOS	PRINCETON RADIO	UNICOM
126.775	122.4	122.8 (CTAF) L

DME REQUIRED







FAF to MAP 4.9 NM					
Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

CATEGORY	A	B	C	D
S-ILS 30	1335-¾ 250 (300-¾)			
S-LOC 30	1440-1 355 (400-1)			1440-1¼ 355 (400-1¼)
CIRCLING	1860-1 774 (800-1)	1860-1¼ 774 (800-1¼)	1860-2¼ 774 (800-2¼)	1860-2½ 774 (800-2½)

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	5499
117°	TDZE	1086
	Apt Elev	1086

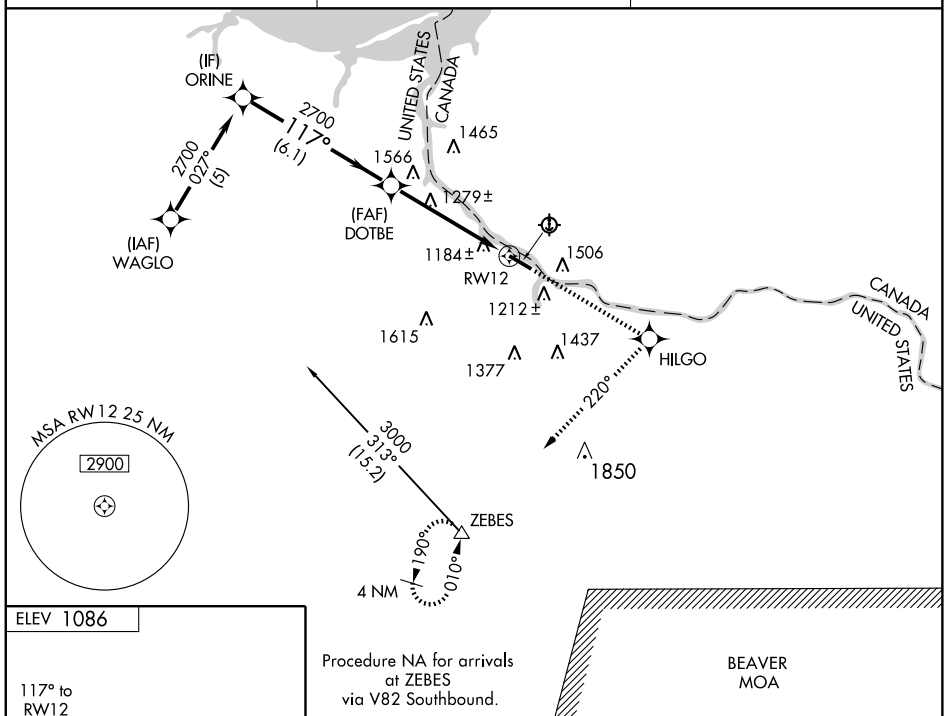
RNAV (GPS) RWY 12

BAUDETTE INTL (BDE)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Baro-VNAV NA when using Warroad altimeter setting. VDP NA with Warroad altimeter setting. When local altimeter setting not received, use Warroad altimeter setting and increase all DA 75 feet and all MDA 80 feet, increase LNAV/VNAV all Cats, LNAV and Circling Cats C and D visibility ¼ mile.

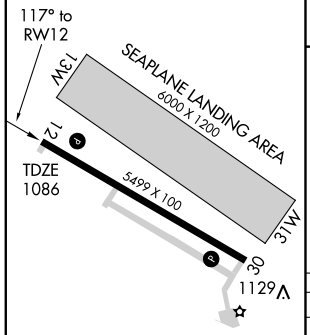
MISSED APPROACH: Climb to 3000 direct HILGO and right turn on track 220° to ZEBES and hold.

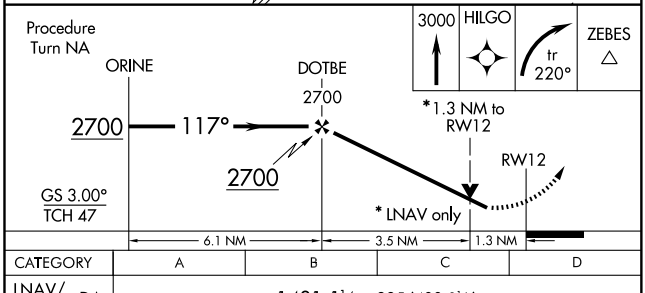
ASOS	PRINCETON RADIO	UNICOM
126.775	122.4	122.8 (CTAF) L



Procedure NA for arrivals at ZEBES via V82 Southbound.

BEAVER MOA





CATEGORY	A	B	C	D
LNAV/VNAV DA	1481-1½ 395 (400-1½)			
LNAV MDA	1560-1 474 (500-1)		1560-1¼ 474 (500-1¼)	1560-1½ 474 (500-1½)
CIRCLING	1860-1 774 (800-1)	1860-1¼ 774 (800-1¼)	1860-2¼ 774 (800-2¼)	1860-2½ 774 (800-2½)

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS		
CH **81814**	**297°**	Rwy Idg	**5499**
W30A		TDZE	**1085**
		Apt Elev	**1086**

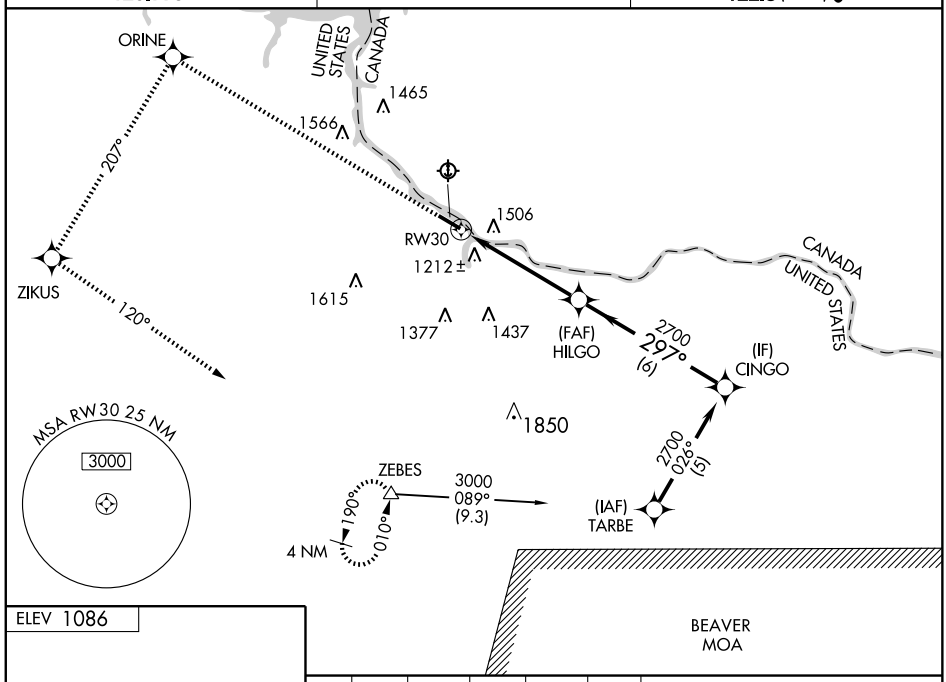
RNAV (GPS) RWY 30

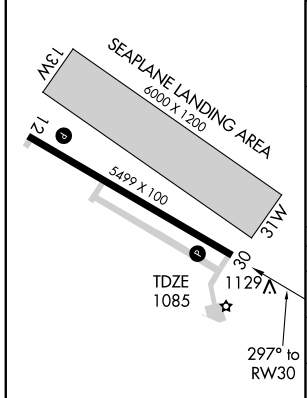
BAUDETTE INTL (BDE)

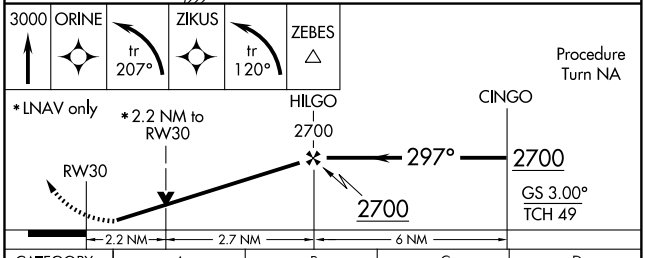
Baro-VNAV NA when using Warroad altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. VDP NA with Warroad altimeter setting. When local altimeter setting not received, use Warroad altimeter setting and increase all DA 75 feet and all MDA 80 feet, increase LPV all Cats and LNAV Cat C/D visibility ½ mile, increase LNAV Cat B and Circling Cat C and D visibility ¼ mile.

MISSED APPROACH: Climb to 3000 direct ORINE and left turn on track 207° to ZIKUS and on track 120° to ZEBES and hold.

ASOS	PRINCETON RADIO	UNICOM
126.775	**122.4**	**122.8** (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1335-¾		250 (300-¾)	
LNAV/VNAV DA	1985-4		900 (900-4)	
LNAV MDA	1820-1	735 (800-1)	1820-2 735 (800-2)	1820-2¼ 735 (800-2¼)
CIRCLING	1860-1 774 (800-1)	1860-1¼ 774 (800-1¼)	1860-2¼ 774 (800-2¼)	1860-2½ 774 (800-2½)

MIRL Rwy 12-30 L

REIL Rwys 12 and 30 L

NC-1, 03 JUN 2010 to 01 JUL 2010

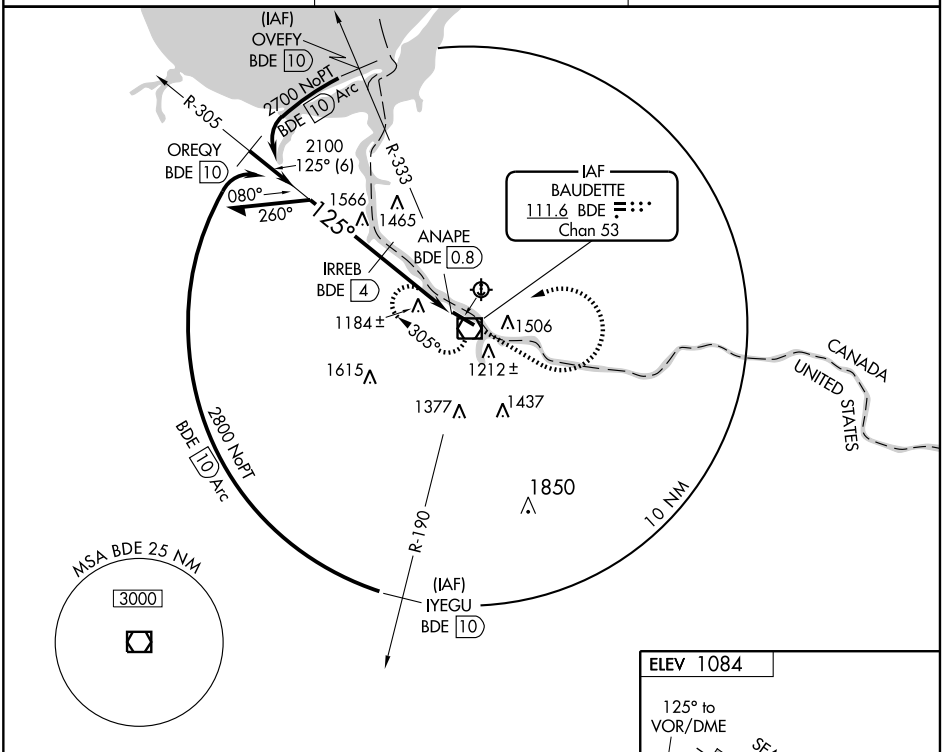
VOR/DME BDE	APP CRS	Rwy Idg	5499
111.6	125°	TDZE	1084
Chan 53		Apt Elev	1084

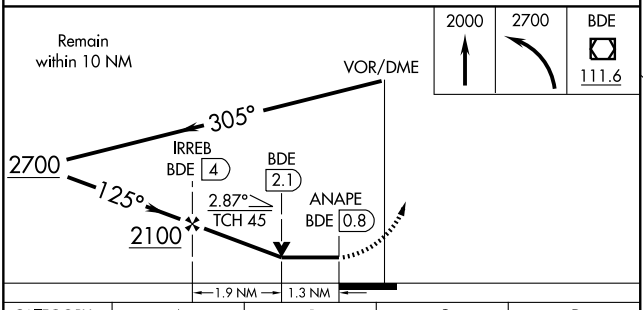
VOR/DME RWY 12

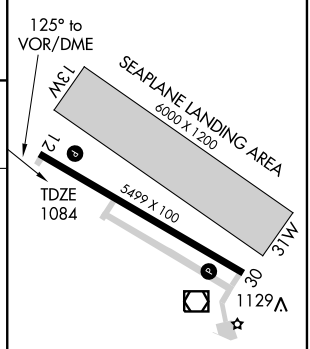
BAUDETTE INTL (BDE)

MISSED APPROACH: Climb to 2000 then climbing left turn to 2700 direct BDE VOR/DME and hold.

ASOS	PRINCETON RADIO	UNICOM
126.775	122.4	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-12	1540-1	456 (500-1)	1540-1¼ 456 (500-1¼)	1540-1½ 456 (500-1½)
CIRCLING	1860-1 776 (800-1)	1860-1¼ 776 (800-1¼)	1860-2¼ 776 (800-2¼)	1860-2½ 776 (800-2½)

MIRL Rwy 12-30 L

REIL Rwy 12 and 30 L

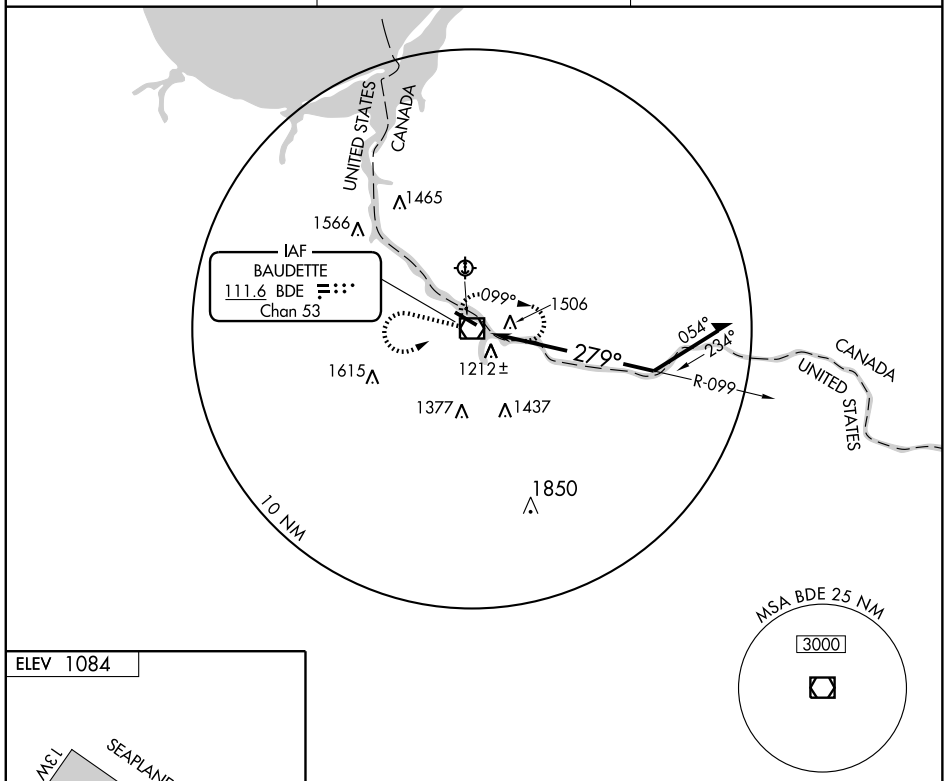
NC-1. 03 JUN 2010 to 01 JUL 2010

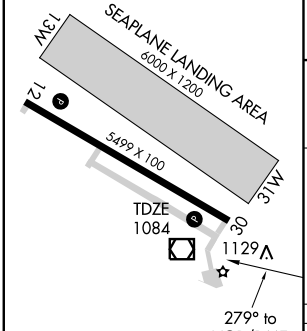
VOR/DME BDE	APP CRS	Rwy Idg	5499
111.6	279°	TDZE	1084
Chan 53		Apt Elev	1084

VOR RWY 30
BAUDETTE INTL (BDE)

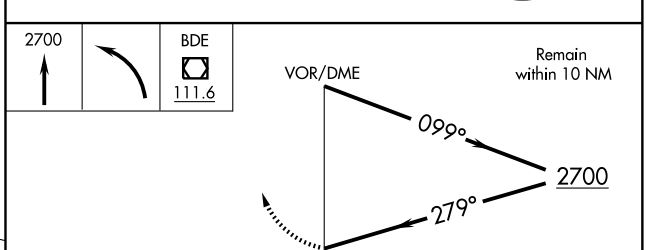
MISSED APPROACH: Climb to 2700 then left turn direct BDE VOR/DME and hold.

ASOS	PRINCETON RADIO	UNICOM
126.775	122.4	122.8 (CTAF) L





MIRL Rwy 12-30 L
REIL Rwy 12 and 30 L



CATEGORY	A	B	C	D
S-30	1860-1 776 (800-1)	1860-1¼ 776 (800-1¼)	1860-2¼ 776 (800-2¼)	1860-2½ 776 (800-2½)
CIRCLING	1860-1 776 (800-1)	1860-1¼ 776 (800-1¼)	1860-2¼ 776 (800-2¼)	1860-2½ 776 (800-2½)

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-BJI	APP CRS	Rwy Idg	5700
109.35	250°	TDZE	1389
Chan 30 (Y)		Apt Elev	1391

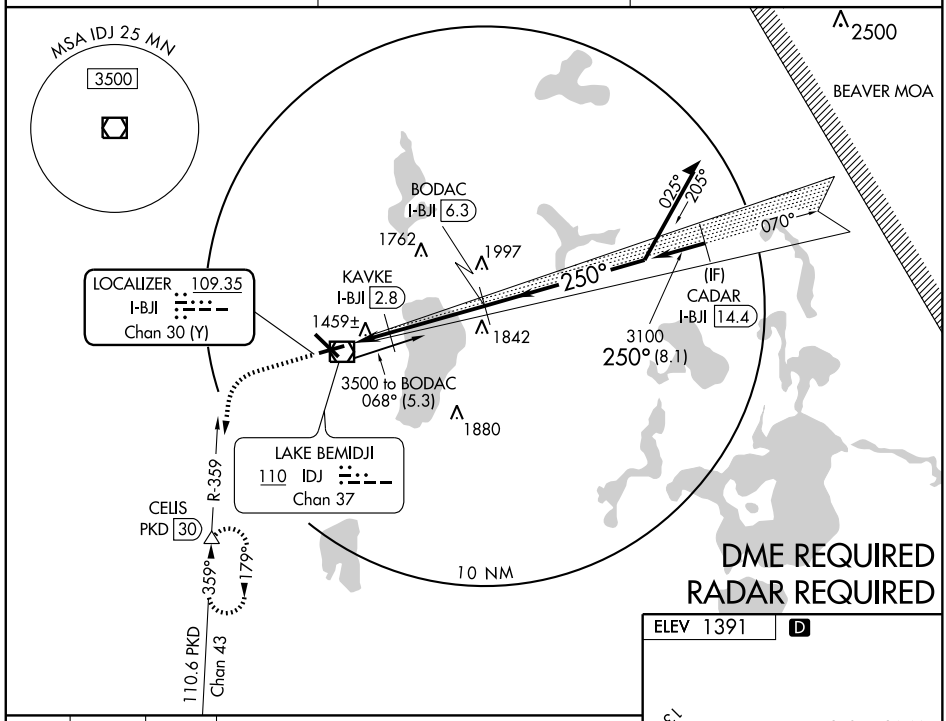
ILS or LOC/DME RWY 25

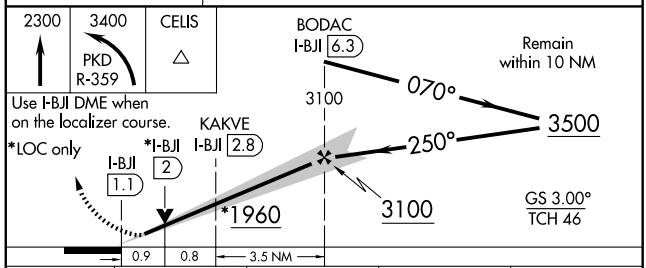
BEMIDJI RGNL (BJI)

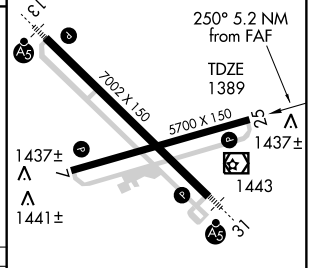
T A NA Visibility reduction by helicopters NA. When local altimeter setting not received, use Park Rapids altimeter setting and increase DA 93 feet and all MDA 100 feet, increase S-ILS 25 all Cats visibility and S-LOC 25 Cat C visibility ¼ mile, S-LOC 25 Cat D visibility ½ mile. VDP NA with Park Rapids altimeter setting.

MISSED APPROACH: Climb to 2300 then climbing left turn to 3400 via PKD VOR/DME R-359 to CELIS/PKD 30 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.275	134.75 251.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 25	1589-¾ 200 (200-¾)			
S-LOC 25	1720-1 331 (400-1)			
CIRCLING	1840-1 449 (500-1)	1860-1 469 (500-1)	1860-1½ 469 (500-1½)	1960-2 569 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 7-25 L
REIL Rwys 7, 25, and 31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-MDI	APP CRS	Rwy Idg	7002
111.9	310°	TDZE	1389
		Apt Elev	1391

ILS or LOC RWY 31

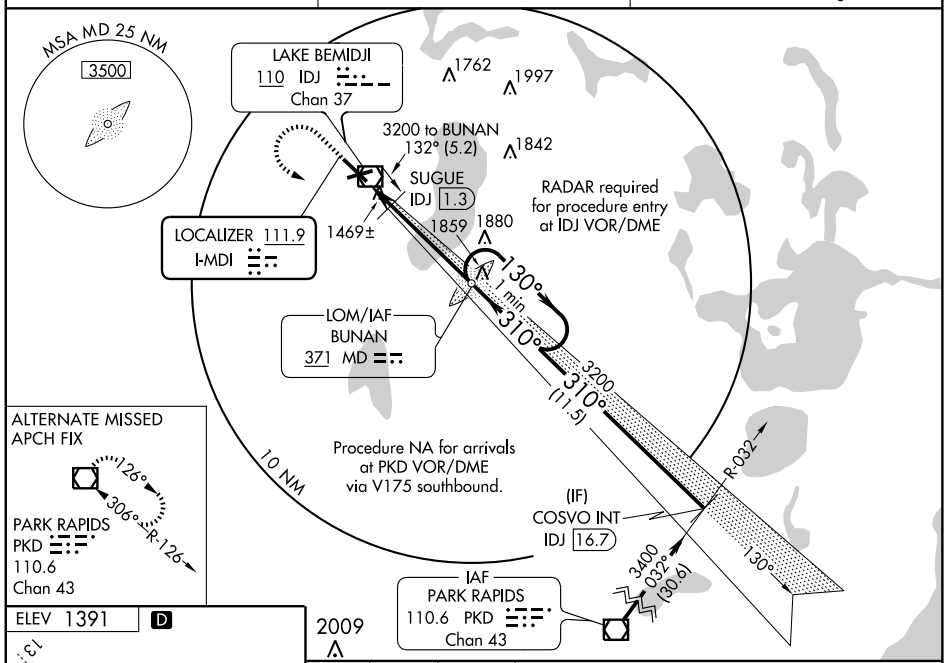
BEMIDJI RGNL (BJI)

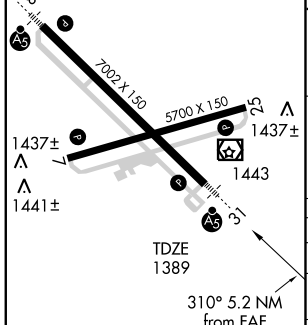
T A NA — ADF required. Autopilot coupled approach NA below 2093. When local altimeter setting not received, use Park Rapids altimeter setting and increase DA 93 feet and all MDA 100 feet, increase S-LOC 31 Cat C/D visibility ¼ mile. For inoperative MALSR when using Park Rapids altimeter setting, increase S-ILS 31 all Cats visibility to 1 mile. SUGUE Fix minimums NA when using Park Rapids altimeter setting. **DME from IDJ VOR/DME.

MALSR (A5)

MISSED APPROACH: Climb to 2300 then climbing left turn to 3200 direct BUNAN LOM and hold.

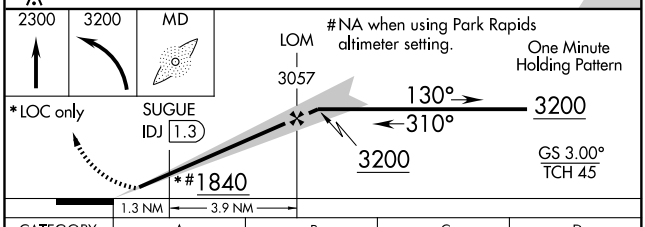
AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.275	134.75 251.1	122.8 (CTAF) L





HIRL Rwy 13-31 L
MIRL Rwy 7-25 L
REIL Rwys 7, 25 and 31 L

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44



CATEGORY	A	B	C	D
S-ILS 31	1589-½ 200 (200-½)			
S-LOC 31	1840-½ 451(500-½)		1840-¾ 451 (500-¾)	1840-1 451 (500-1)
CIRCLING	1840-1 449 (500-1)	1860-1 469 (500-1)	1860-1½ 469 (500-1½)	1960-2 569 (600-2)
** SUGUE FIX MINIMUMS				
S-LOC 31	1780-½ 391 (400-½)			1780-¾ 391 (400-¾)
CIRCLING	1840-1 449 (500-1)	1860-1 469 (500-1)	1860-1½ 469 (500-1½)	1960-2 569 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	7002
130°	TDZE	1391
	Apt Elev	1391

RNAV (GPS) RWY 13

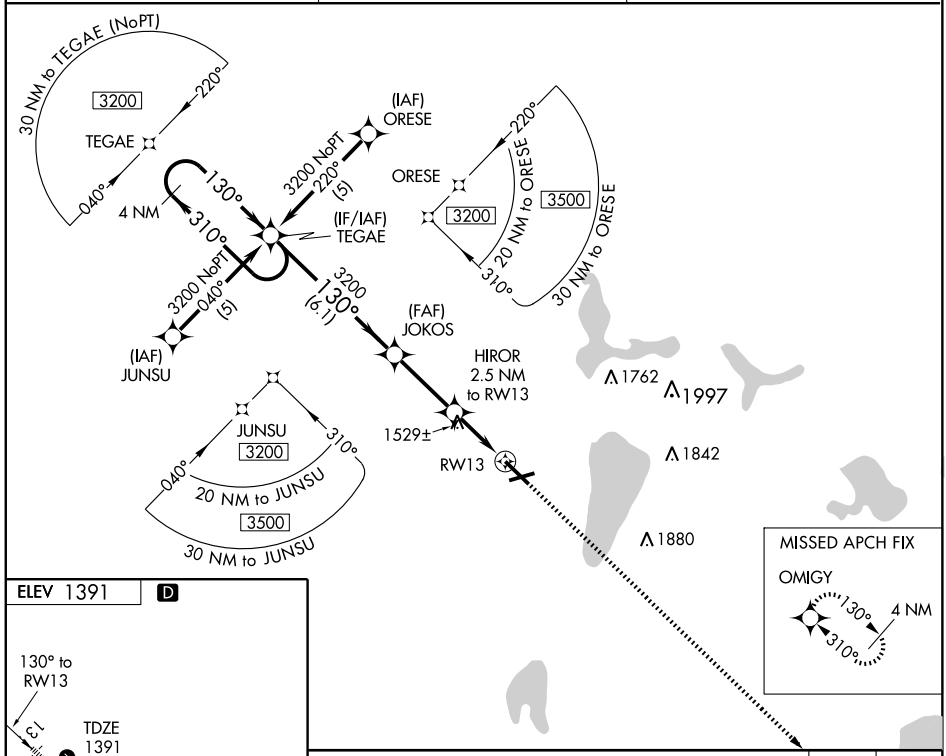
BEMIDJI RGNL (BJI)

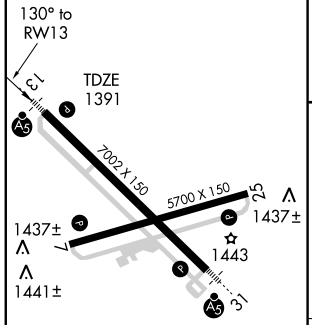
For inoperative MALSR, increase LNAV Cats A/B/C visibility to 1 mile, Cat D visibility to 1¼ mile. DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. VDP NA when using Park Rapids altimeter setting. When local altimeter setting not received, use Park Rapids altimeter setting, and increase all MDA 100 feet. For inoperative MALSR when using Park Rapids altimeter setting, increase LNAV Cats A/B visibilities to 1 mile.

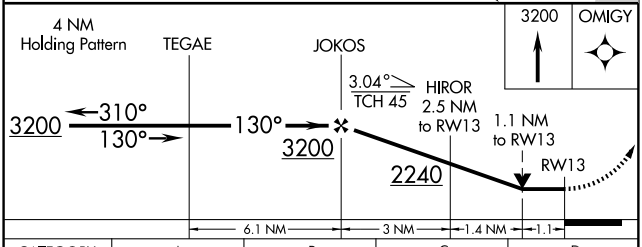
MALSR

MISSED APPROACH: Climb to 3200 direct OMIGY and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.275	134.75 251.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1780-¾ 389 (400-¾)			1780-1 389 (400-1)
CIRCLING	1840-1 449 (500-1)	1860-1 469 (500-1)	1860-1½ 469 (500-1½)	1960-2 569 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 7-25 L
REIL Rwys 7, 13, and 25 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy ldg	5700
CH 65917	250°	TDZE	1389
W25A		Apt Elev	1391

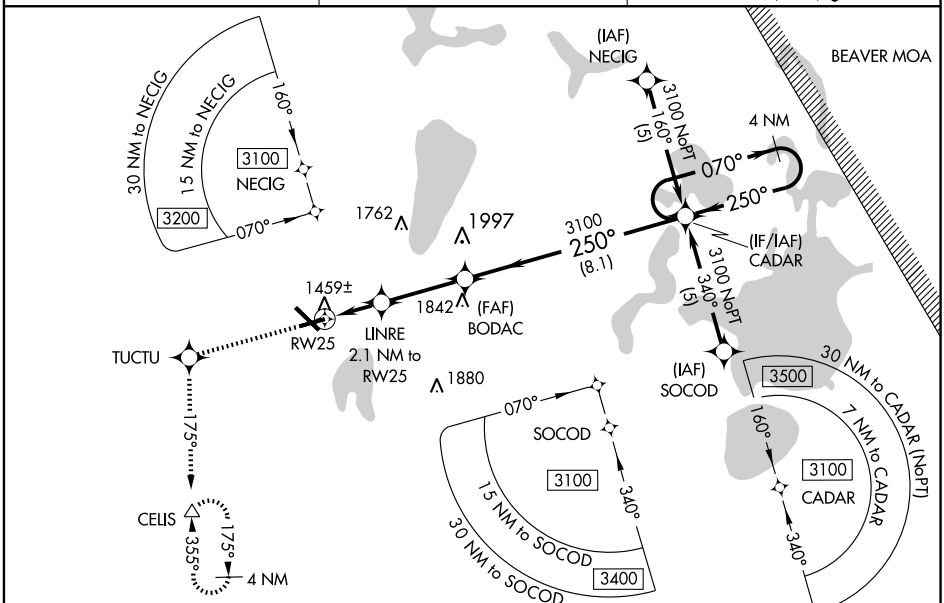
RNAV (GPS) RWY 25

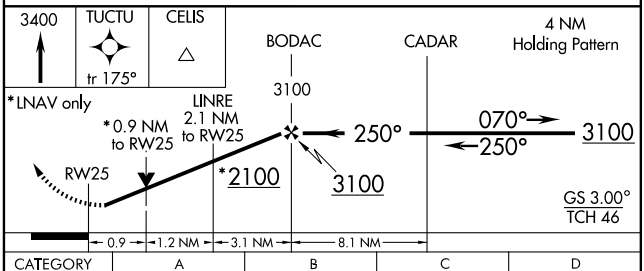
BEMIDJI RGNL (BJI)

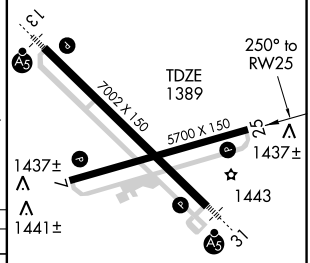
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Park Rapids altimeter setting and increase all DA 93 feet and all MDA 100 feet, increase LPV all Cats visibility and LNAV Cat C visibility ¼ mile, LNAV/VNAV all Cats visibility and LNAV Cat D visibility ½ mile. Baro-VNAV NA when using Park Rapids altimeter setting. VDP NA with Park Rapids altimeter setting.

MISSED APPROACH: Climb to 3400 direct TUCTU and on track 175° to CELIS and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.275	134.75 251.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1589-¾ 200 (200-¾)			
LNAV/VNAV DA	1752-1¼ 363 (400-1¼)			
LNAV MDA	1720-1 331 (400-1)			
CIRCLING	1840-1 449 (500-1)	1860-1 469 (500-1)	1860-1½ 469 (500-1½)	1960-2 569 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 7-25 L
REIL Rwys 7, 13, and 25 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy ldg	7002
CH 99711	310°	TDZE	1389
W31A		Apt Elev	1391

RNAV (GPS) RWY 31

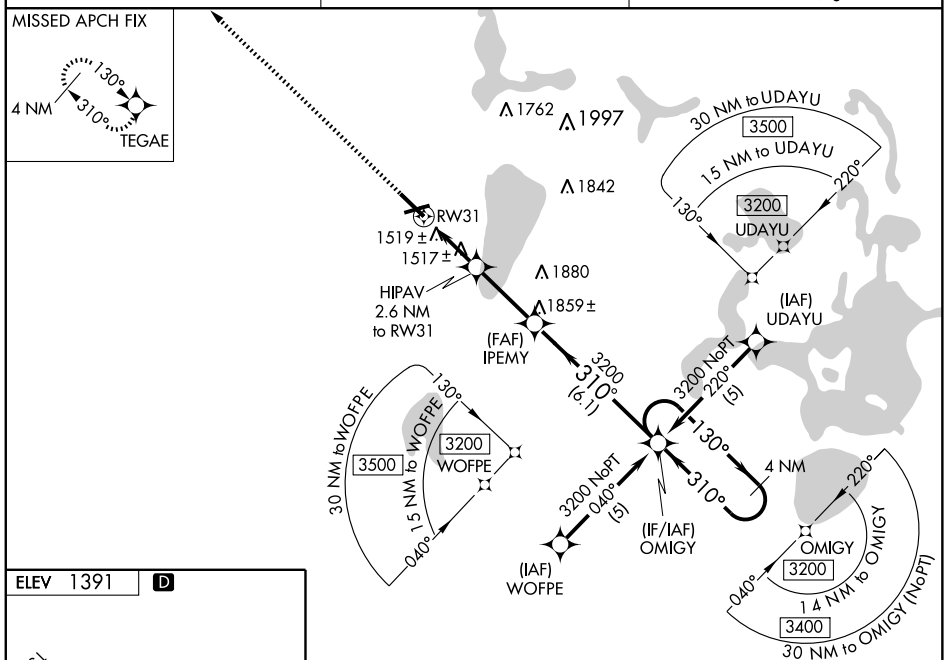
BEMIDJI RGNL (BJI)

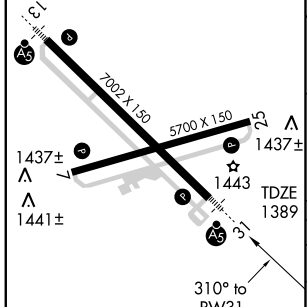
For inoperative MALSR, increase LNAV Cat D visibility to 1¼ mile. Baro-VNAV NA when using Park Rapids altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP -0.3 NA. VDP NA when using Park Rapids altimeter setting. When local altimeter setting not received, use Park Rapids altimeter setting and increase all DA 93 feet and all MDA 100 feet; increase LNAV/VNAV all Cats visibility ½ mile and LNAV Cat C visibility ¼ mile. For inoperative MALSR when using Park Rapids altimeter setting, increase LPV visibility to 1 mile all Cats.

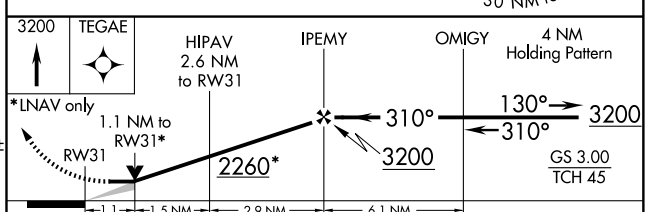
MALSR

MISSED APPROACH: Climb to 3200 direct TEGAE and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.275	134.75 251.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1589-½ 200 (300-½)			
LNAV/VNAV DA	1825-1 436 (500-1)			
LNAV MDA	1780-½ 391 (400-½)			1780-1 391 (400-1)
CIRCLING	1840-1 449 (500-1)	1860-1 469 (500-1)	1860-1½ 469 (500-1½)	1960-2 569 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 7-25 L
REIL Rwys 7, 13, and 25 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME IDJ	APP CRS	Rwy Idg	7002
110	123°	TDZE	1391
Chan 37		Apt Elev	1391

VOR/DME RWY 13

BEMIDJI RGNL (BJI)

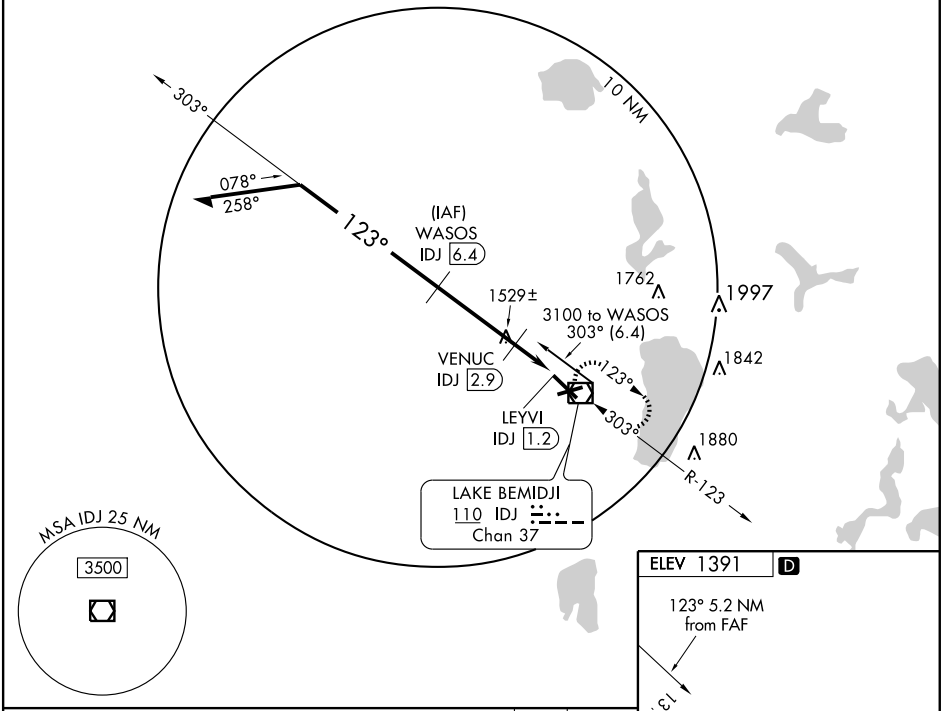
T A NA When local altimeter setting not received, use Park Rapids altimeter setting and increase all MDA 100 feet. VDP NA with Park Rapids altimeter setting. For inoperative MALSR increase S-13 Cats A, B and C visibility to 1 mile and Cat D visibility to 1¼ mile. For inoperative MALSR when using Park Rapids altimeter setting, increase S-13 Cats A and B visibility to 1 mile.

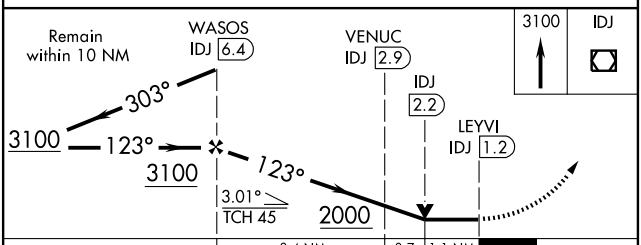
MALSR A5

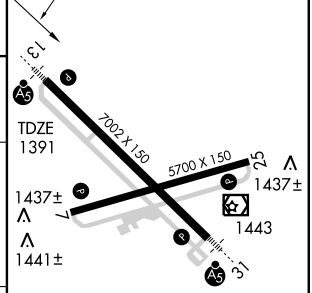
MISSED APPROACH: Climb to 3100 direct IDJ VOR/DME and hold, continue to climb-in-hold to 3100.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.275	134.75 251.1	122.8 (CTAF) L

RADAR REQUIRED







CATEGORY	A	B	C	D
S-13	1780-¾ 389 (400-¾)			1780-1 389 (400-1)
CIRCLING	1840-1 449 (500-1)	1860-1 469 (500-1)	1860-1½ 469 (500-1½)	1960-2 569 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 7-25 L
REIL Rwys 7, 13, and 25 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME IDJ	APP CRS	Rwy Idg	7002
110	328°	TDZE	1389
Chan 37		Apt Elev	1391

VOR/DME RWY 31

BEMIDJI RGNL (BJI)

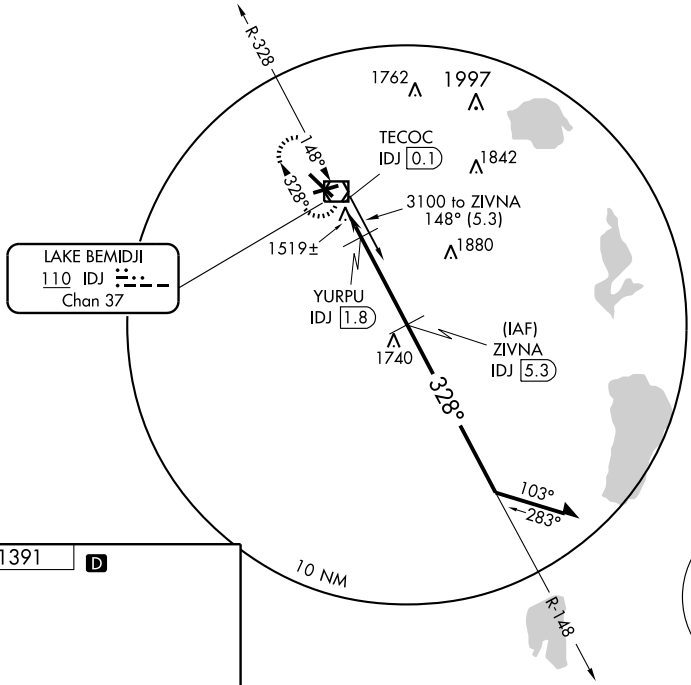
T A NA When local altimeter setting not received, use Park Rapids altimeter setting and increase all MDA 100 feet, increase S-31 Cat C visibility ¼ mile. VDP NA with Park Rapids altimeter setting. For inoperative MALSR, increase S-31 Cat D visibility to 1¼ mile.

MALSR A5

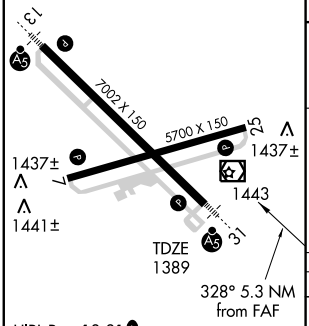
MISSED APPROACH: Climb to 3100 direct IDJ VOR/DME and hold, continue climb-in-hold to 3100.

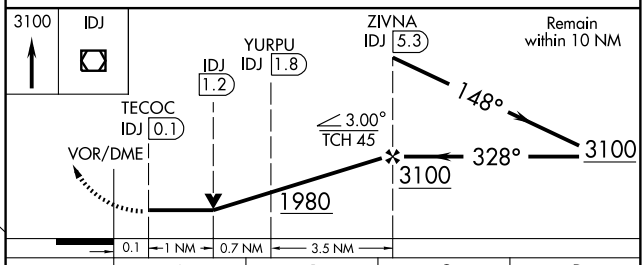
AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.275	134.75 251.1	122.8 (CTAF) L

RADAR REQUIRED



ELEV 1391 D





CATEGORY	A	B	C	D
S-31	1780-½ 391 (400-½)			1780-1 391 (400-1)
CIRCLING	1840-1 449 (500-1)	1860-1 469 (500-1)	1860-1½ 469 (500-1½)	1960-2 569 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 7-25 L
REIL Rwys 7, 13, and 25 L

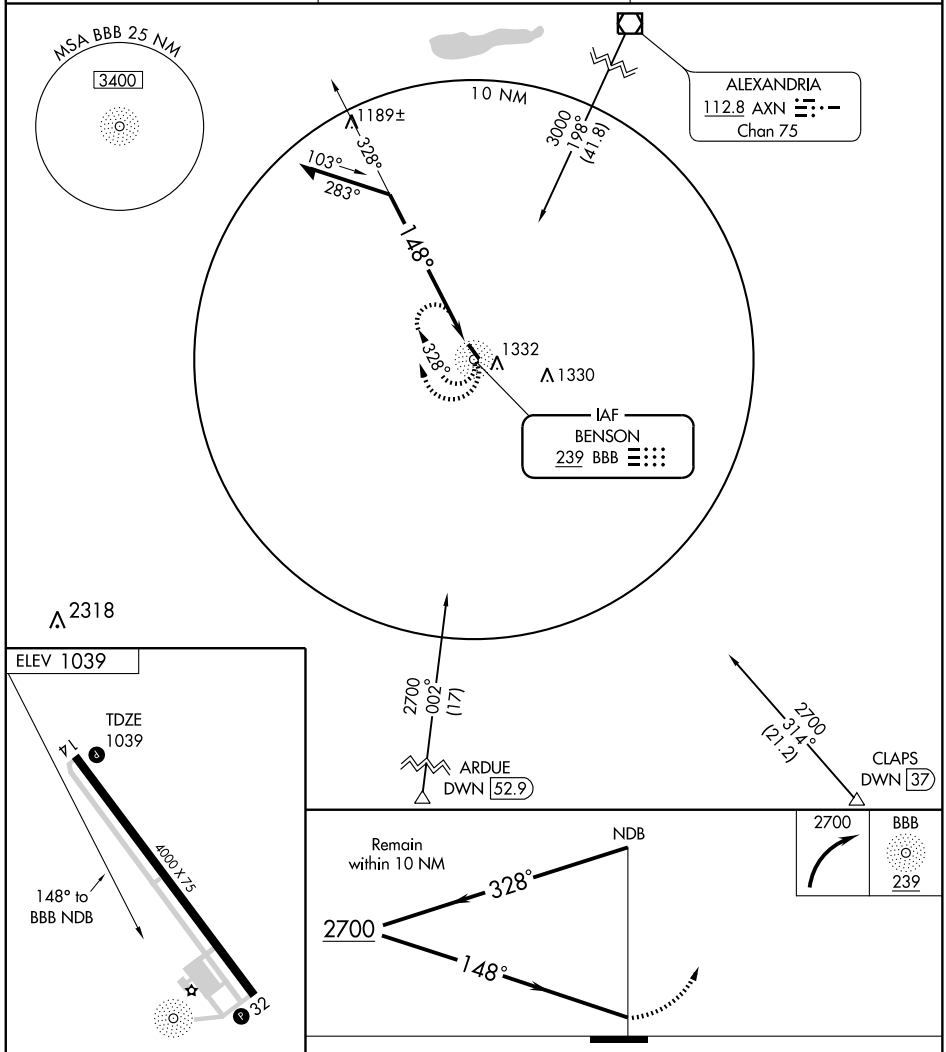
NDB BBB 239	APP CRS 148°	Rwy Idg 4000 TDZE 1039 Apt Elev 1039

NDB RWY 14
BENSON MUNI (BBB)

T NA — If local altimeter setting not recieved, use Appleton altimeter setting and increase all MDAs 40 feet.

MISSED APPROACH: Climbing right turn to 2700 in BBB NDB holding pattern.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
239	125.5 323.1	122.8 (CTAF) L



CATEGORY	A	B	C	D
S-14	1700-1	661 (700-1)	NA	
CIRCLING	1740-1	701 (800-1)	NA	

REIL Rwys 14 and 32 L
MIRL Rwy 14-32 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	4000
CH 49210	138°	TDZE	1039
W14A		Apt Elev	1039

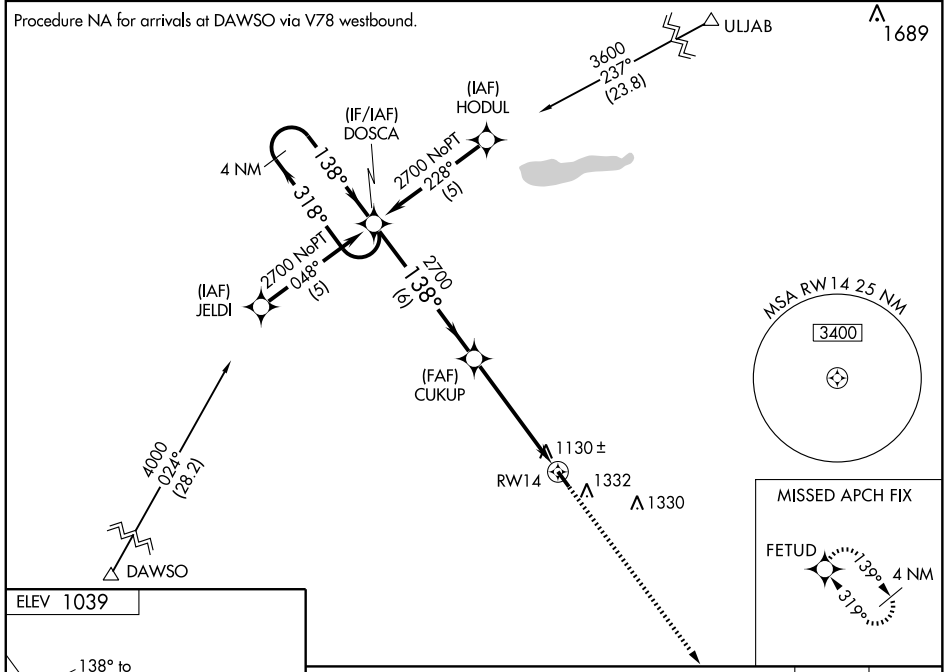
RNAV (GPS) RWY 14
BENSON MUNI (BBB)

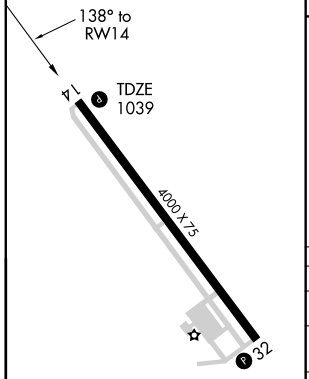
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 54°C (130°F).
DME/DME RNP -0.3 NA.
Baro-VNAV and VDP NA when using Appleton altimeter setting.
When local altimeter setting not received, use Appleton altimeter setting and increase all DA and MDA 40 feet, increase Circling Cat B visibility ¼ mile.

MISSED APPROACH: Climb to 2700 direct FETUD and hold.

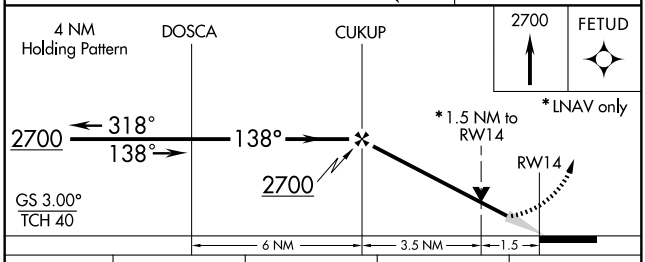
AWOS-3	MINNEAPOLIS CENTER	UNICOM
239	125.5 323.1	122.8 (CTAF) L

Procedure NA for arrivals at DAWSO via V78 westbound.





MIRL Rwy 14-32 L
REIL Rwys 14 and 32 L



CATEGORY	A	B	C	D
LPV DA	1382-1¼	343 (400-1¼)	NA	
LNAV/VNAV DA	1426-1½	387 (400-1½)	NA	
LNAV MDA	1540-1	501 (600-1)	NA	
CIRCLING	1740-1	701 (800-1)	NA	

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	4000
CH 99710	319°	TDZE	1039
W32A		Apt Elev	1039

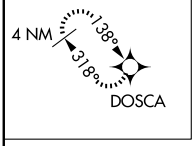
RNAV (GPS) RWY 32
BENSON MUNI (BBB)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 54°C (130°F).
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
Baro-VNAV NA when using Appleton altimeter setting.
When local altimeter setting not received, use Appleton altimeter setting and increase all DA and MDA 40 feet, increase Circling Cat B visibility ¼ mile.

MISSED APPROACH: Climb to 2700 direct DOSCA and hold.

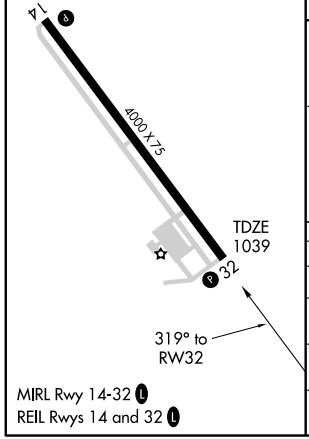
AWOS-3	MINNEAPOLIS CENTER	UNICOM
239	125.5 323.1	122.8 (CTAF) L

MISSED APCH FIX

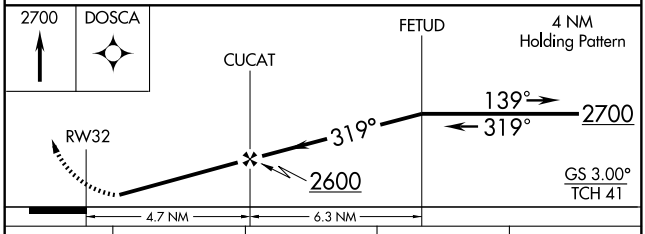


Procedure NA for arrivals at ARMUW via V175 northbound.

ELEV 1039



MIRL Rwy 14-32 L
REIL Rwys 14 and 32 L



CATEGORY	A	B	C	D
LPV DA	1426-1½	387 (400-1½)	NA	
LNAV/VNAV DA	1710-2½	671 (700-2½)	NA	
LNAV MDA	1700-1	661 (700-1)	NA	
CIRCLING	1740-1	701 (800-1)	NA	

NC-1. 03 JUN 2010 to 01 JUL 2010

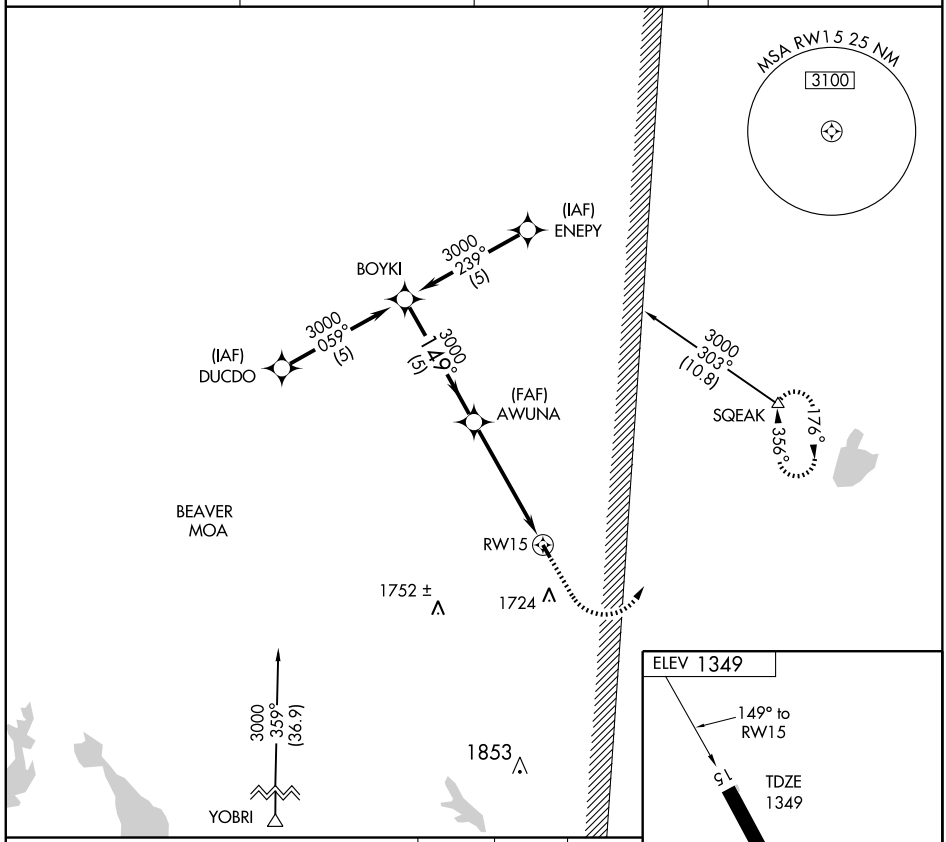
APP CRS	Rwy Idg	3100
149°	TDZE	1349
	Apt Elev	1349

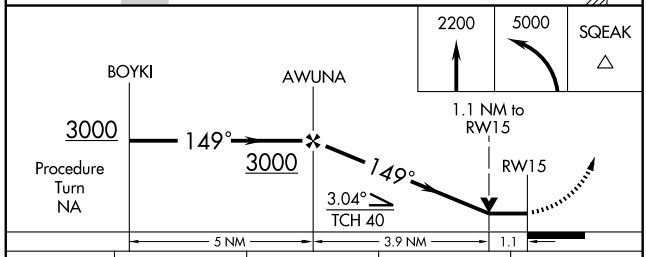
GPS RWY 15
BIGFORK MUNI (FOZ)

NA

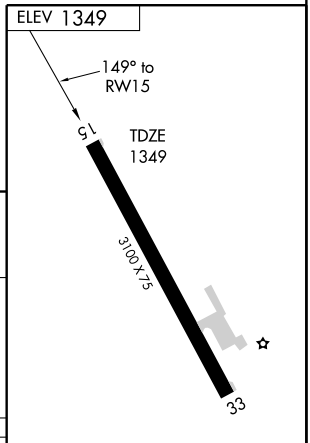
MISSED APPROACH: Climb to 2200 then climbing left turn to 5000 direct SQEAK and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
345	127.9 281.45	121.725	122.9 L





CATEGORY	A	B	C	D
S-15	1740-1	391 (400-1)	NA	
CIRCLING	1780-1 431 (500-1)	1800-1 451 (500-1)	NA	



MIRL Rwy 15-33 L

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB FOZ	APP CRS	Rwy Idg	3100
345	160°	TDZE	1346
		Apt Elev	1348

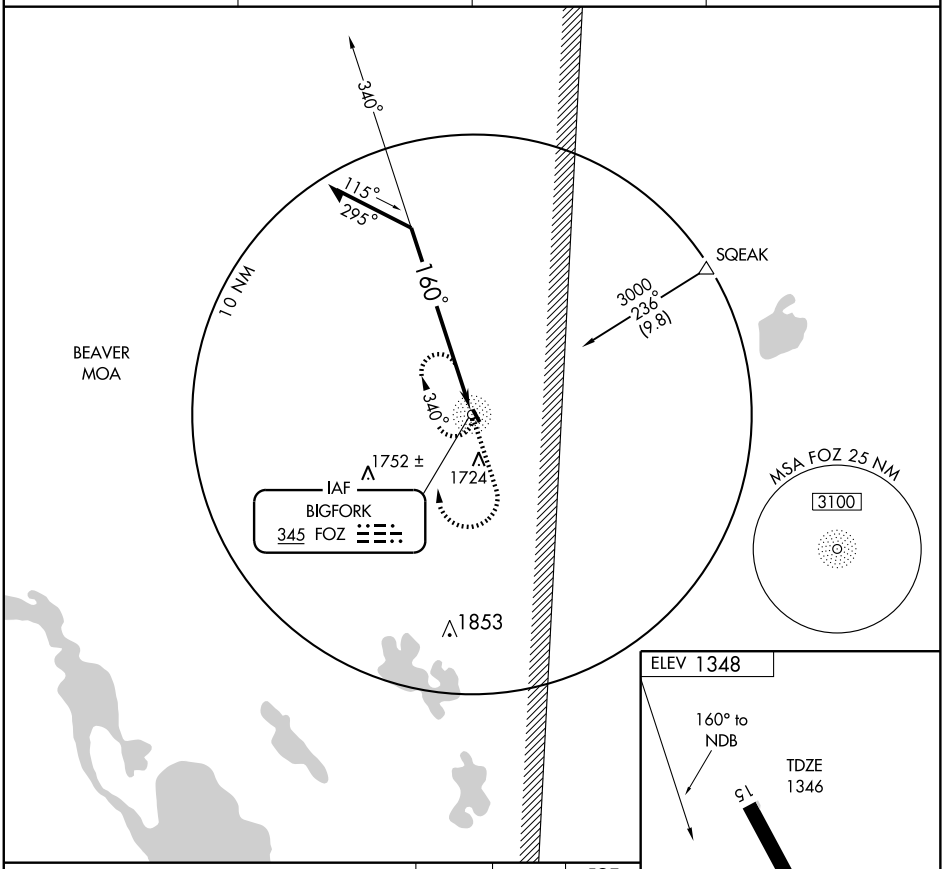
NDB RWY 15
BIGFORK MUNI (FOZ)

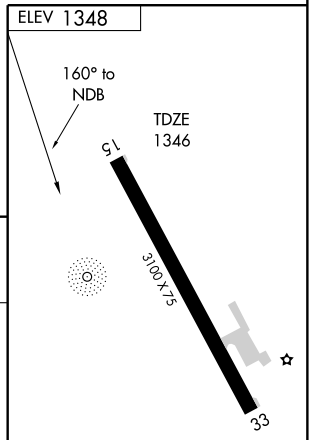
Procedure not authorized when BEAVER MOA is active.

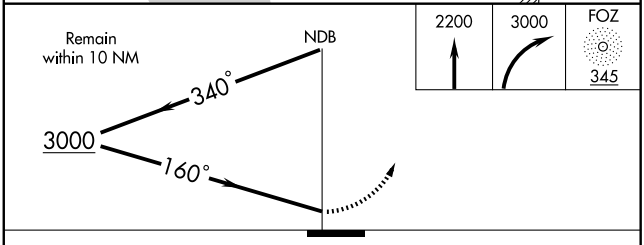
NA

MISSED APPROACH: Climb to 2200 then climbing right turn to 3000 direct FOZ NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
345	127.9 281.45	121.725	122.9 L







CATEGORY	A	B	C	D
S-15	1840-1	494 (500-1)	NA	
CIRCLING	1840-1	494 (500-1)	NA	

MIRL Rwy 15-33 L

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB SBU 332	APP CRS 330°	Rwy Idg 3399 TDZE 1107 Apt Elev 1107

NDB or GPS RWY 34

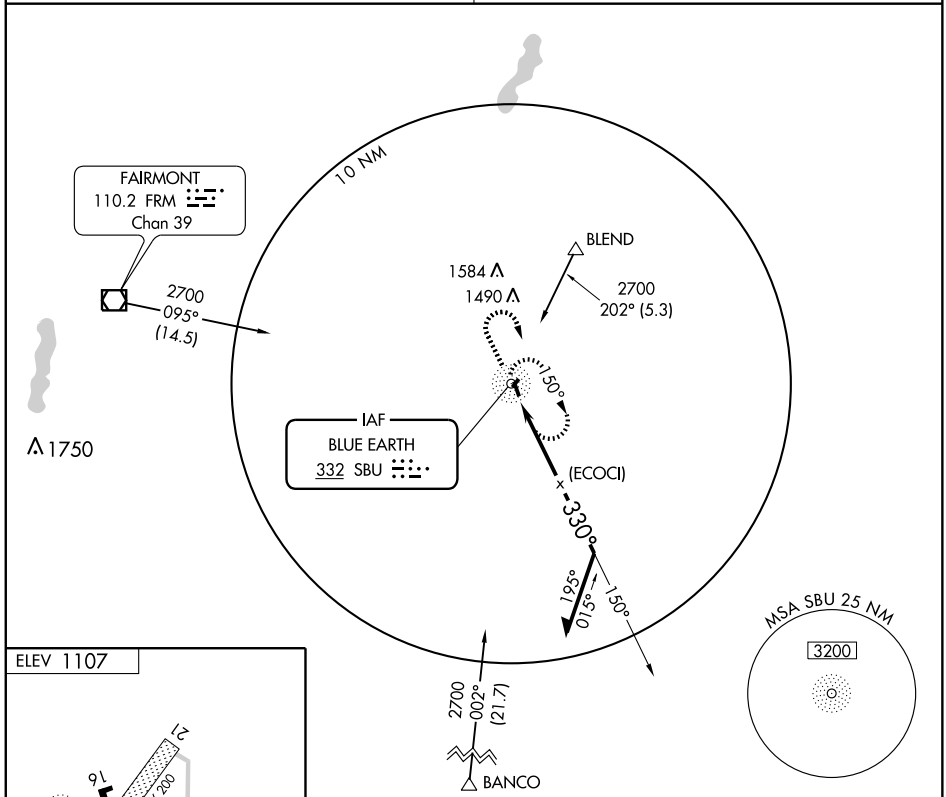
BLUE EARTH MUNI (SBU)

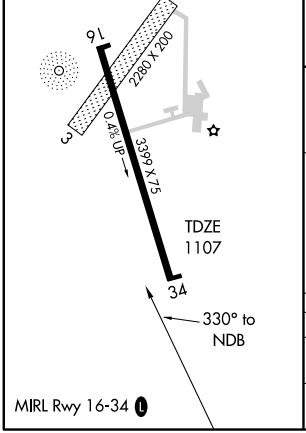
NA Use Fairmont altimeter setting.

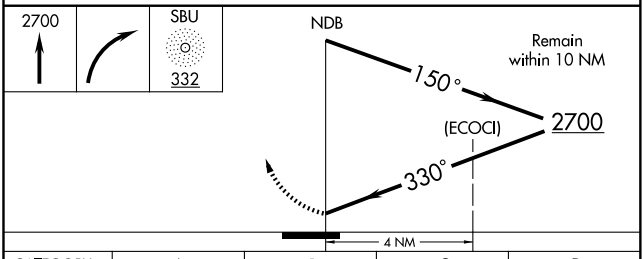
MISSED APPROACH: Climb to 2700 then right turn direct SBU NDB and hold.

MINNEAPOLIS CENTER
127.75 257.7

UNICOM
122.8 (CTAF) L







CATEGORY	A	B	C	D
S-34	1700-1	593 (600-1)	1700-1½ 593 (600-1½)	NA
CIRCLING	1700-1	593 (600-1)	1700-1½ 593 (600-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-BRD	APP CRS	Rwy Idg	6514
109.9	231°	TDZE	1224
		Apt Elev	1232

ILS or LOC RWY 23

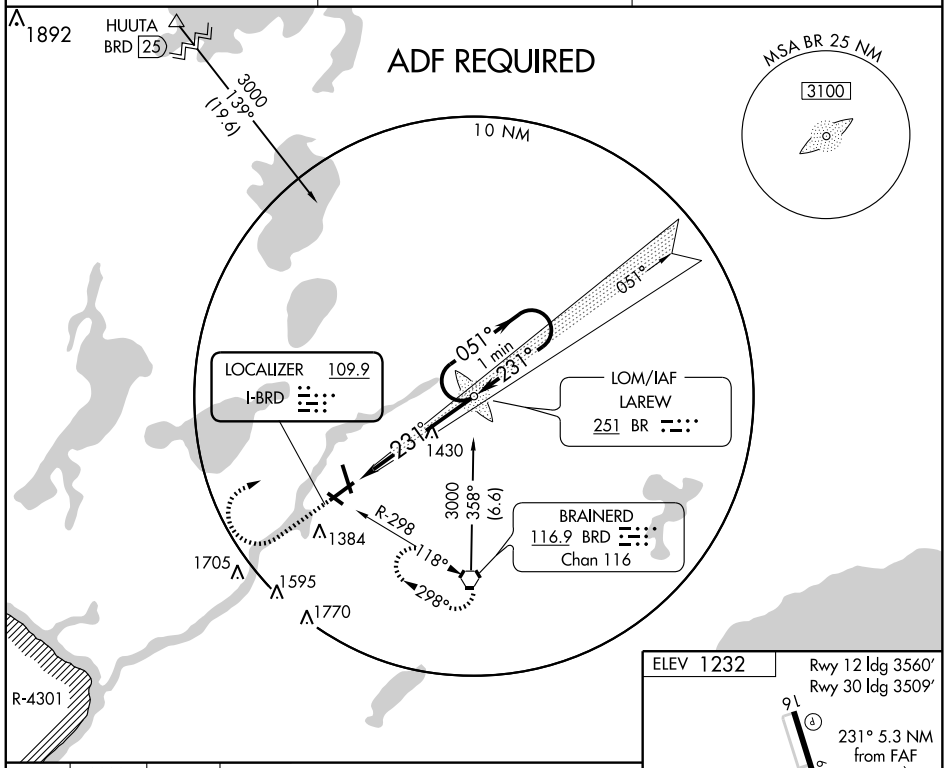
BRAINERD LAKES RGNL (BRD)

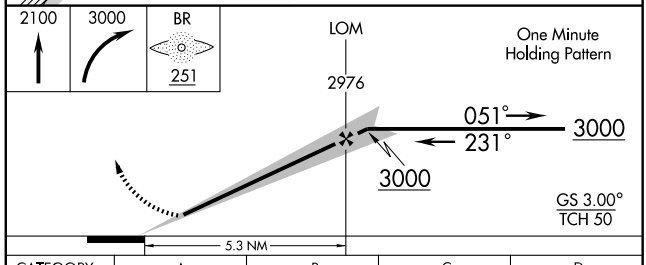
If local altimeter setting not received, use Aitkin Muni-Steve Kurtz Field altimeter setting and increase all DAs 52 feet, all MDAs 60 feet.

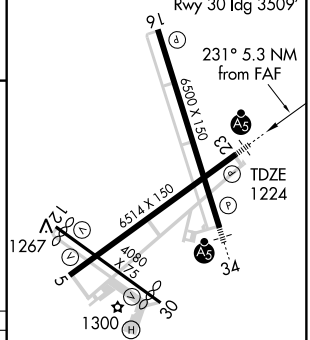
MALSR

MISSED APPROACH: Climb to 2100 then climbing right turn to 3000 direct LAREW LOM and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 23	1424-½ 200 (200-½)			
S-LOC 23	1680-½ 456 (500-½)		1680-¾ 456 (500-¾)	1680-1 456 (500-1)
CIRCLING	1760-1 528 (600-1)		1760-1½ 528 (600-1½)	1800-2 568 (600-2)

HIRL Rwy 5-23 and 16-34 L
MIRL Rwy 12-30 L
REIL Rwys 5, 16, and 30 L

FAF to MAP 5.3 NM

Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-LER	APP CRS	Rwy Idg	6500
109.7	340°	TDZE	1232
		Apt Elev	1232

ILS or LOC RWY 34

BRAINERD LAKES RGNL (BRD)

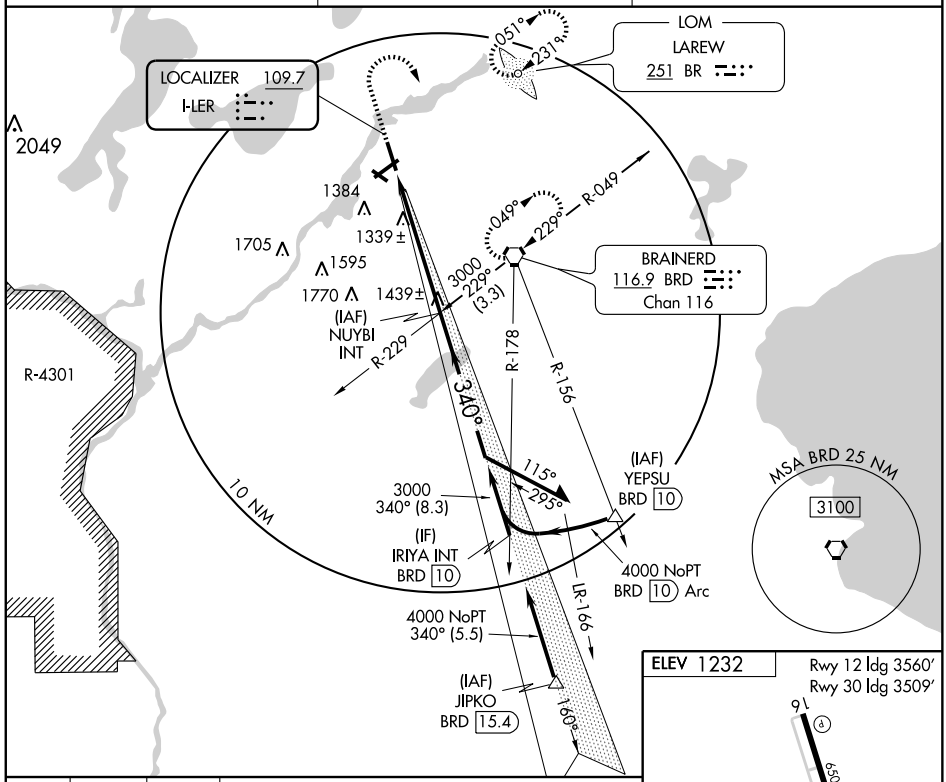
If local altimeter setting not received, use Aitkin altimeter setting and increase DA 52 feet and increase all MDAs 60 feet.

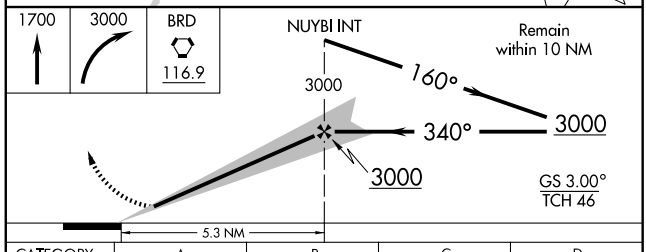
NA

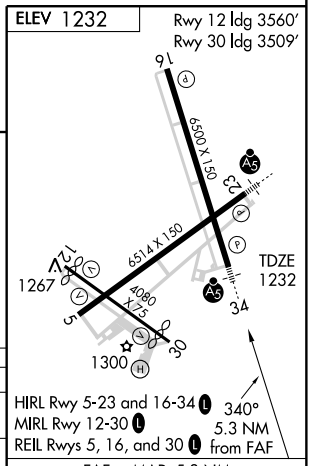
MALSR

MISSED APPROACH: Climb to 1700 then climbing right turn to 3000 direct BRD VORTAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 34	1432-½ 200 (200-½)			
S-LOC 34	1600-½ 368 (400-½)			1600-¾ 368 (400-¾)
CIRCLING	1760-1 528 (600-1)		1760-1½ 528 (600-1½)	1800-2 568 (600-2)

FAF to MAP 5.3 NM

Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46

NC-1. 03 JUN 2010 to 01 JUL 2010

LOM BR	APP CRS	Rwy Idg	6514
251	231°	TDZE	1224
		Apt Elev	1232

NDB RWY 23

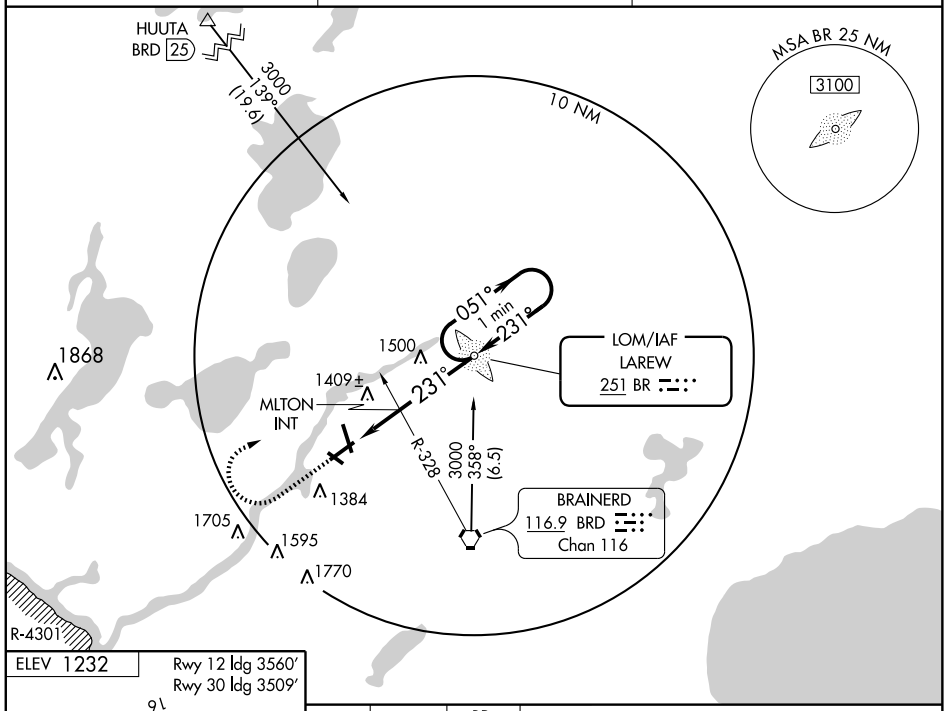
BRAINERD LAKES RGNL (BRD)

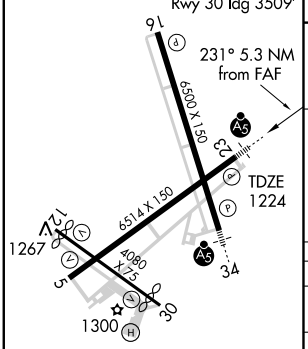
T A NA — If local altimeter setting not received, use Aitkin Muni-Steve Kurtz Field altimeter setting and increase all MDAs 60 feet.

MALSR (A5)

MISSED APPROACH: Climb to 3000 then right turn direct BR LOM and hold.

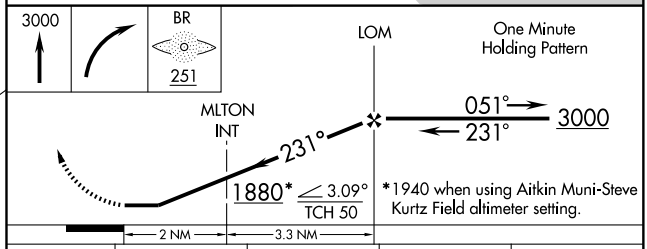
ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L





HIRL Rwy 5-23 and 16-34 L
MIRL Rwy 12-30 L
REIL Rwys 5, 16, and 30 L

FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46



*1940 when using Aitkin Muni-Steve Kurtz Field altimeter setting.

CATEGORY	A	B	C	D
S- 23	1880-¾ 656 (700-¾)		1880-1¼ 656 (700-1¼)	1880-1¾ 656 (700-1¾)
CIRCLING	1880-1 648 (700-1)		1880-1¾ 648 (700-1¾)	1880-2 648 (700-2)
MLTON FIX MINIMUMS				
S- 23	1720-¾ 496 (500-¾)			1720-1¼ 496 (500-1¼)
CIRCLING	1760-1 528 (600-1)		1760-1½ 528 (600-1½)	1800-2 568 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	6514
050°	TDZE	1223
	Apt Elev	1226

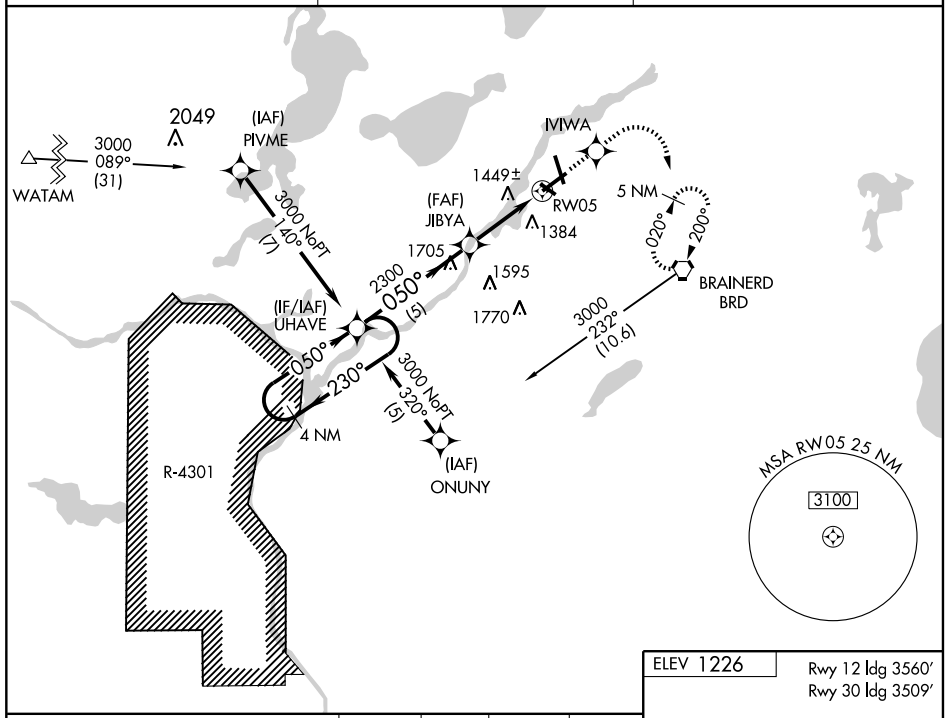
RNAV (GPS) RWY 5

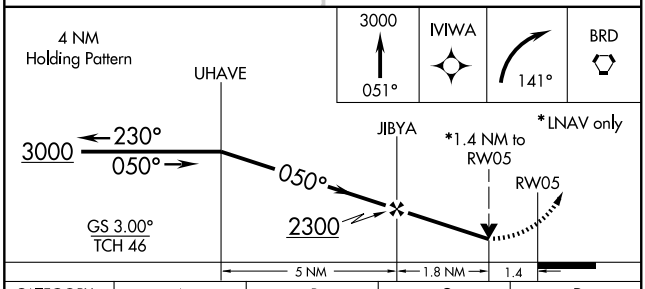
BRAINERD LAKES RGNL (BRD)

Baro-VNAV NA below -17°C (2°F).
NA GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.
Holding in lieu of procedure turn NA when R-4301 is active.

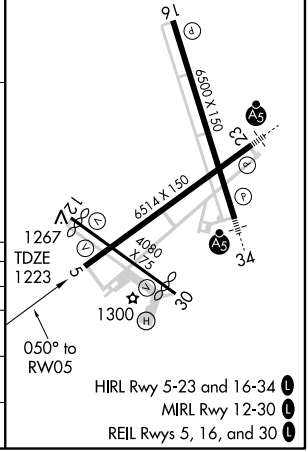
MISSED APPROACH: Climb to 3000 via 051° course to IVIWA WP then right turn via 141° course to BRD VORTAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L





CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	1700-1¾ 477 (500-1¾)			
LNAV MDA	1700-1 477 (500-1)		1700-1¼ 477 (500-1¼)	1700-1½ 477 (500-1½)
CIRCLING	1760-1¾ 534 (600-1¾)			1780-2 554 (600-2)



NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3560
122°	TDZE	1225
	Apt Elev	1232

RNAV (GPS) RWY 12

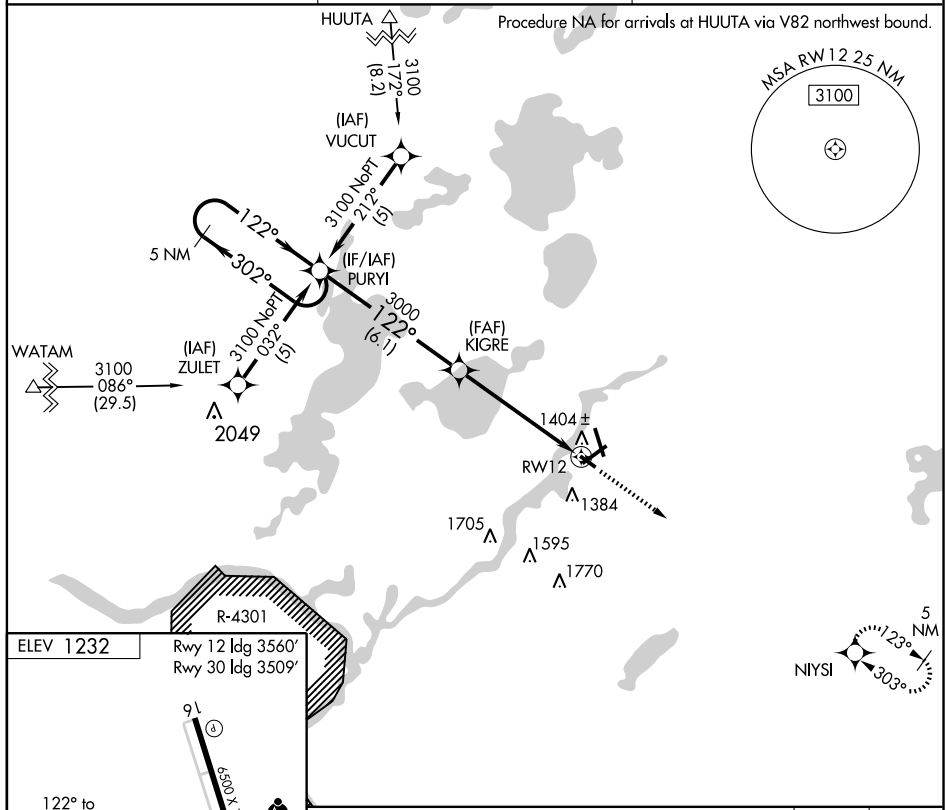
BRAINERD LAKES RGNL (BRD)

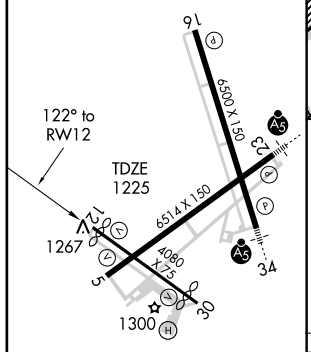
If local altimeter setting not received, use Aitkin Muni-Steve Kurtz Field altimeter setting and increase all MDAs 60 feet.
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3300 direct NIYSI and hold.

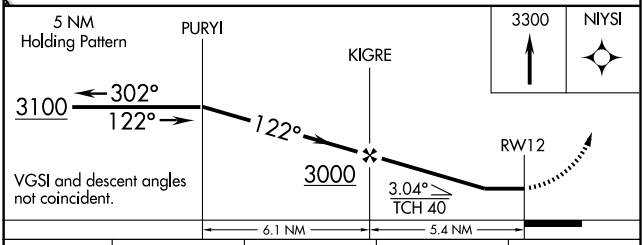
ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L

Procedure NA for arrivals at HUUTA via V82 northwest bound.





HIRL Rwy 5-23 and 16-34 L
MIRL Rwy 12-30 L
REIL Rwys 5, 16, and 30 L



CATEGORY	A	B	C	D
LNAV MDA	1660-1	435 (500-1)	1660-1¼ 435 (500-1¼)	1660-1½ 435 (500-1½)
CIRCLING	1760-1	528 (600-1)	1760-1½ 528 (600-1½)	1800-2 568 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	6514
CH 82502	231°	TDZE	1224
W23A		Apt Elev	1232

RNAV (GPS) RWY 23

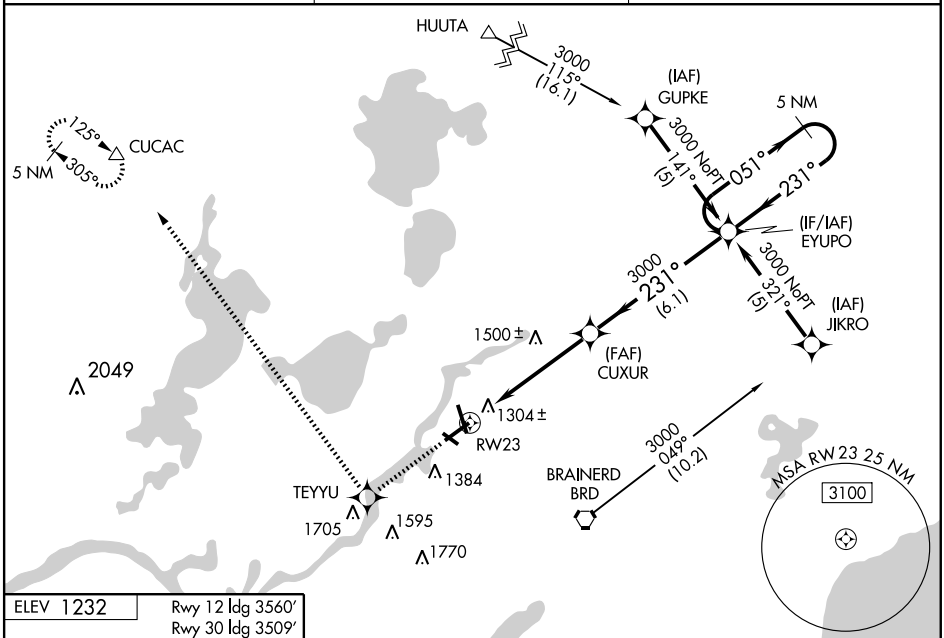
BRAINERD LAKES RGNL (BRD)

For inoperative MALSR, increase LPV all CATS visibility to 1 mile.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP -0.3 NA.
VDP and Baro-VNAV NA when using Aitkin Muni-Steve Kurtz Field altimeter setting. If local altimeter setting not received, use Aitkin Muni-Steve Kurtz Field altimeter setting and increase all DAs 52 feet and all MDAs 60 feet.

MALSR

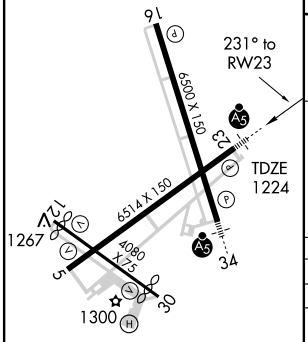
MISSED APPROACH: Climb to 3300 direct TEYYU and via 321° track to CUCAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L



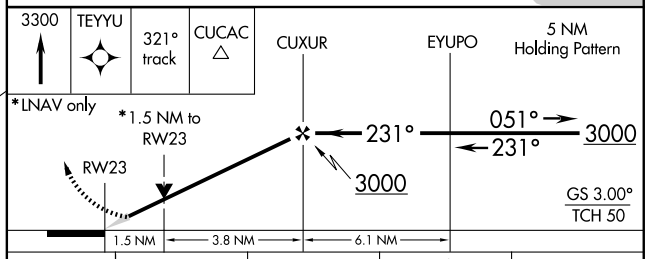
ELEV 1232

Rwy 12 ldg 3560'
Rwy 30 ldg 3509'



HIRL Rwy 5-23 and 16-34 L
MIRL Rwy 12-30 L
REIL Rwys 5, 16, and 30 L

Procedure NA for arrivals at BRD VORTAC via V161 southbound.



CATEGORY	A	B	C	D
LPV DA	1501-½ 277 (300-½)			
LNAV/VNAV DA	1573-¾ 349 (400-¾)			
LNAV MDA	1760-½ 536 (600-½)		1760-1 536 (600-1)	1760-1¼ 536 (600-1¼)
CIRCLING	1760-1 528 (600-1)		1760-1½ 528 (600-1½)	1800-2 568 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS		
303°	Rwy Idg	3509
	TDZE	1225
	Apt Elev	1232

RNAV (GPS) RWY 30

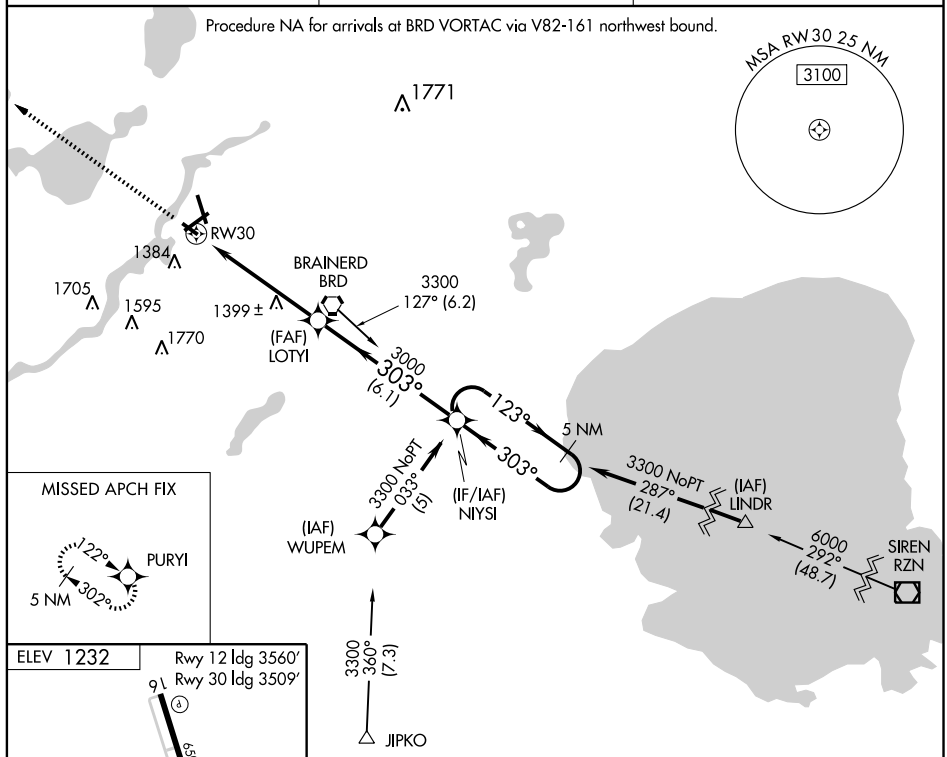
BRAINERD LAKES RGNL (BRD)

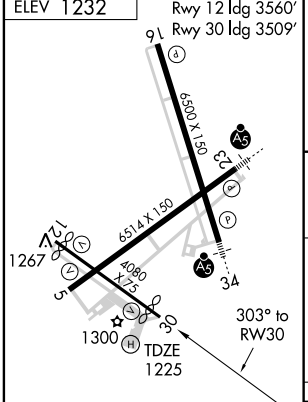
If local altimeter setting not received, use Aitkin Muni-Steve Kurtz Field altimeter setting and increase all MDAs 60 feet.
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.

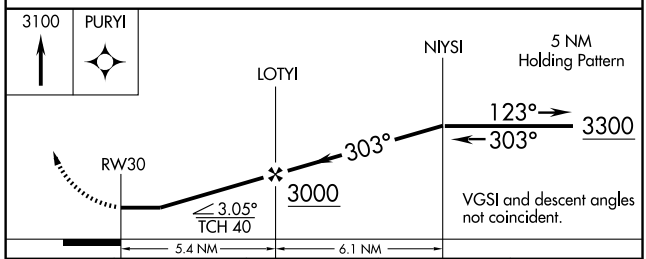
MISSED APPROACH: Climb to 3100 direct PURYI and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L

Procedure NA for arrivals at BRD VORTAC via V82-161 northwest bound.







CATEGORY	A	B	C	D
LNAV MDA	1660-1 435 (500-1)		1660-1¼ 435 (500-1¼)	1660-1½ 435 (500-1½)
CIRCLING	1760-1 528 (600-1)		1760-1½ 528 (600-1½)	1800-2 568 (600-2)

HIRL Rwy 5-23 and 16-34 L
MIRL Rwy 12-30 L
REIL Rwys 5, 16, and 30 L

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 70711 W34A	APP CRS 340°	Rwy Idg 6500 TDZE 1232 Apt Elev 1232

RNAV (GPS) RWY 34

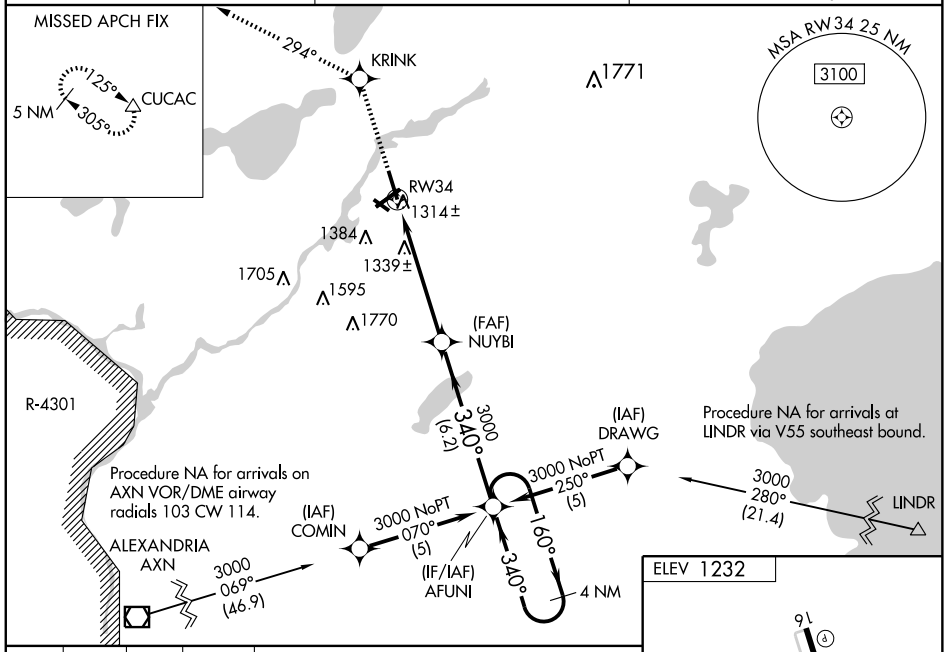
BRAINERD LAKES RGNL (BRD)

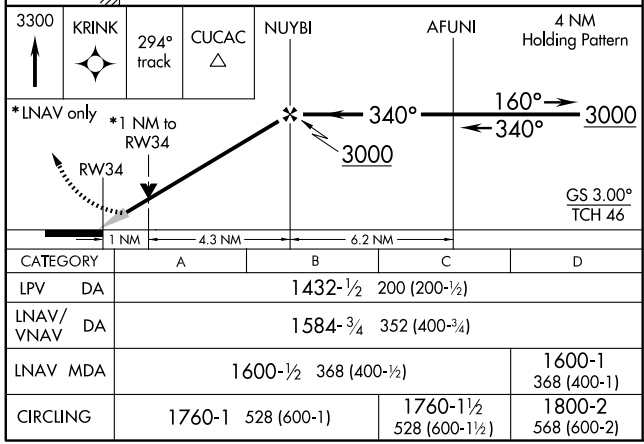
For inoperative MALSR, increase LNAV Cat D visibility to 1¼ mile.
Baro-VNAV NA when using Aitkin altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Aitkin altimeter setting and increase all DA 52 feet and all MDA 60 feet, increase LNAV/VNAV all Cats and LNAV Cat C and D visibility ¼ mile. VDP NA when using Aitkin altimeter setting.
For inoperative MALSR when using Aitkin altimeter setting, increase LNAV Cat D visibility to 1½ mile.

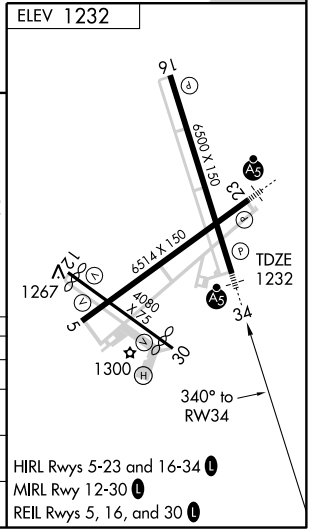
MALSR

MISSED APPROACH: Climb to 3300 direct KRINK and via 294° track to CUCAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1432-½ 200 (200-½)			
LNAV/VNAV DA	1584-¾ 352 (400-¾)			
LNAV MDA	1600-½ 368 (400-½)			1600-1 368 (400-1)
CIRCLING	1760-1 528 (600-1)		1760-1½ 528 (600-1½)	1800-2 568 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

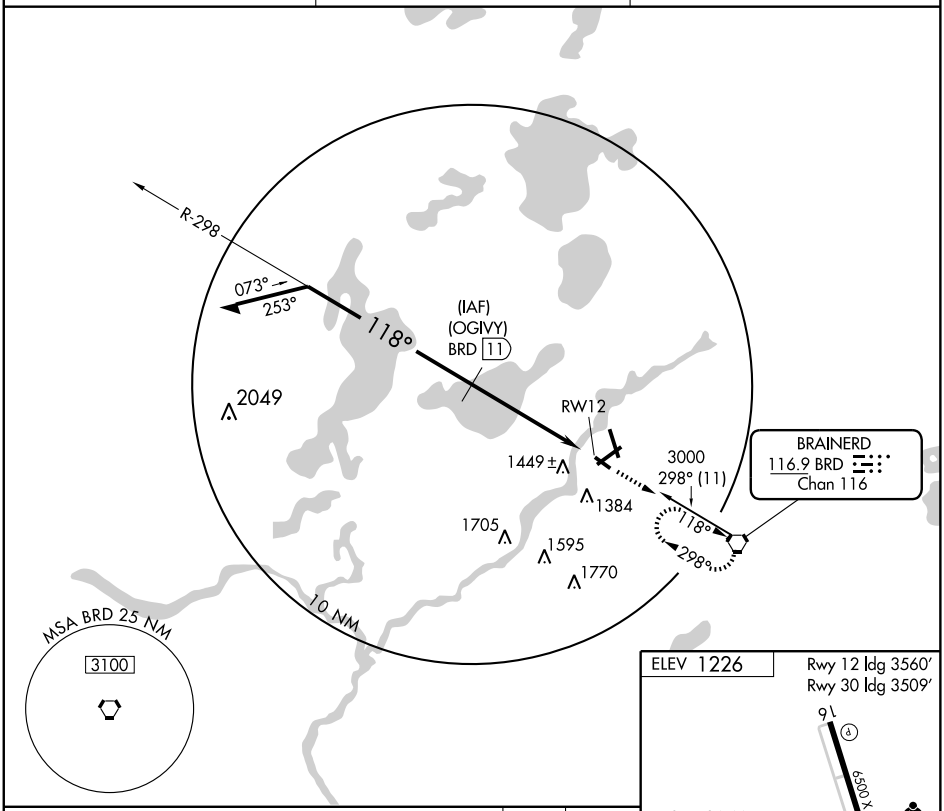
VORTAC BRD	APP CRS	Rwy Idg	3560
116.9	118°	TDZE	1225
Chan 116		Apt Elev	1226

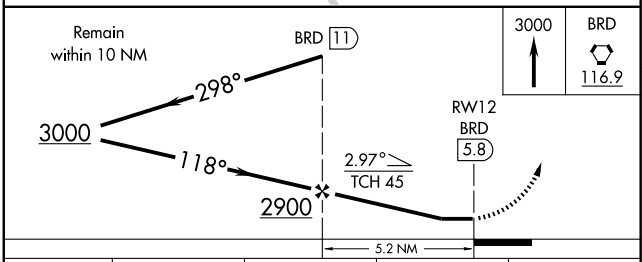
VOR/DME or GPS RWY 12

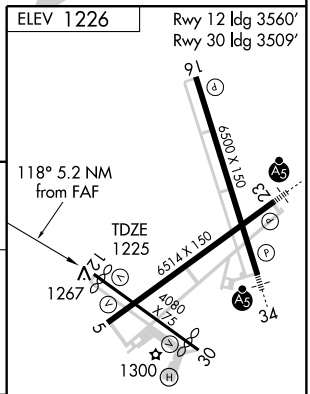
BRAINERD LAKES RGNL (BRD)

MISSED APPROACH: Climb to 3000 direct BRD VORTAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L







CATEGORY	A	B	C	D
S-12	1700-1	475 (500-1)	1700-1¼ 475 (500-1¼)	1700-1½ 475 (500-1½)
CIRCLING	1760-1	534 (600-1)	1760-1½ 534 (600-1½)	1780-2 554 (600-2)

HIRL Rwy 5-23 and 16-34 L
MIRL Rwy 12-30 L
REIL Rwys 5, 16, and 30 L

NC-1. 03 JUN 2010 to 01 JUL 2010

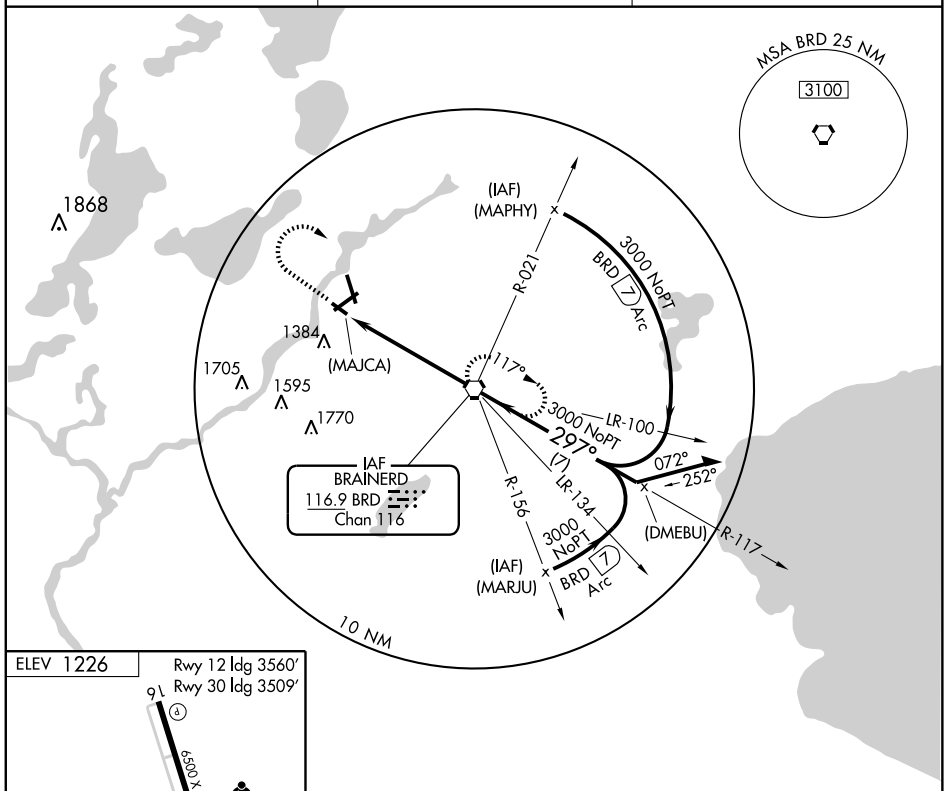
VORTAC BRD 116.9 Chan 116	APP CRS 297°	Rwy Idg 3509 TDZE 1225 Apt Elev 1226

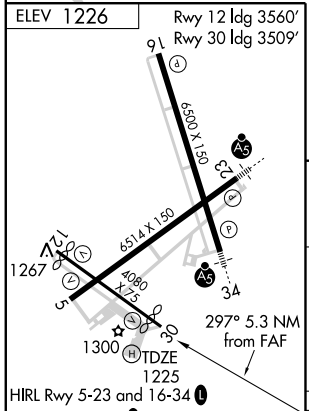
VOR or GPS RWY 30

BRAINERD LAKES RGNL (BRD)

MISSED APPROACH: Climb to 3000 then right turn direct BRD VORTAC and hold.

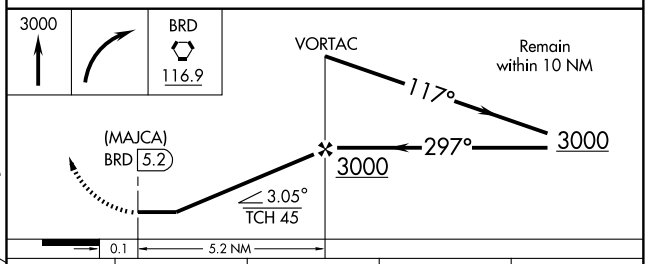
ASOS	MINNEAPOLIS CENTER	UNICOM
126.775	118.05 239.0	122.7 (CTAF) L





HIRL Rwy 5-23 and 16-34 L
MIRL Rwy 12-30 L
REIL Rwys 5, 16, and 30 L

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

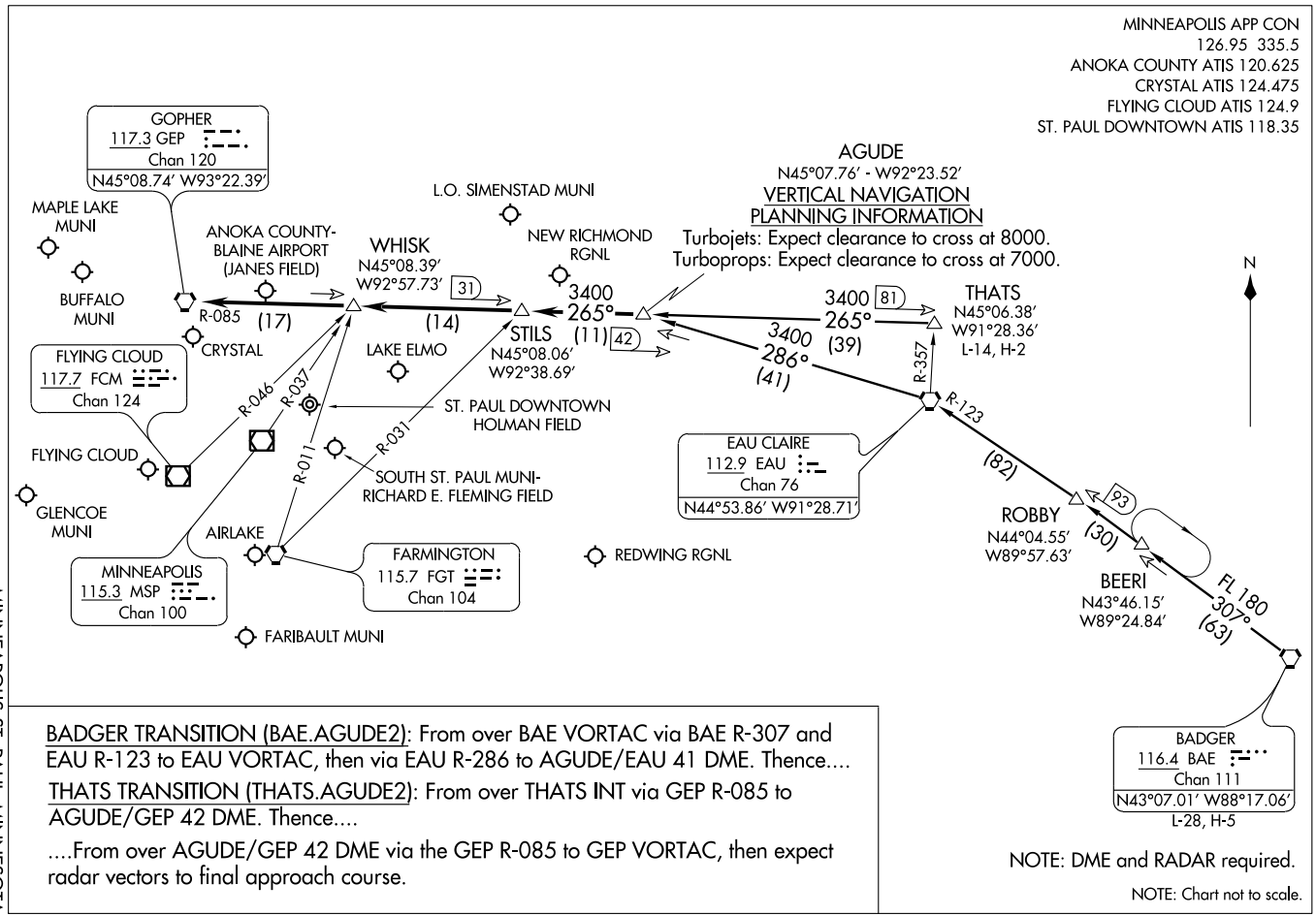


CATEGORY	A	B	C	D
S-30	1660-1	435 (500-1)	1660-1¼ 435 (500-1¼)	1660-1½ 435 (500-1½)
CIRCLING	1760-1	534 (600-1)	1760-1½ 534 (600-1½)	1780-2 554 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

VORTAC GEP 117.3 Chan 120	APP CRS 266°	Rwy Idg N/A TDZE N/A Apt Elev 967

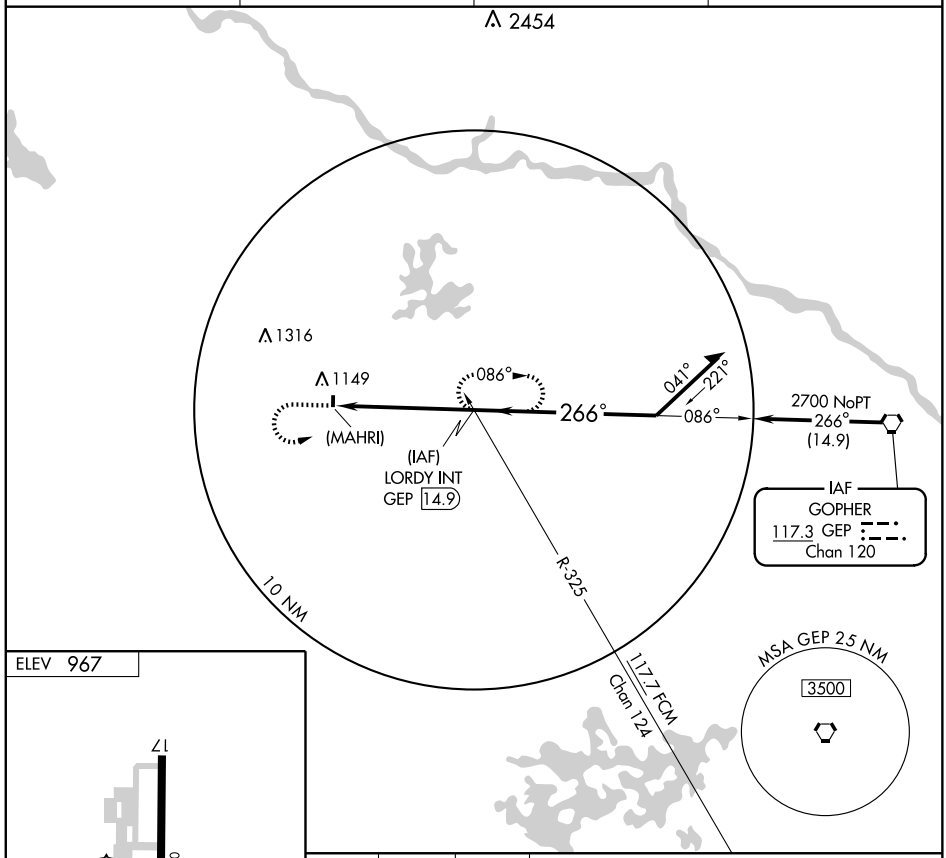
VOR or GPS-B
BUFFALO MUNI (CFE)

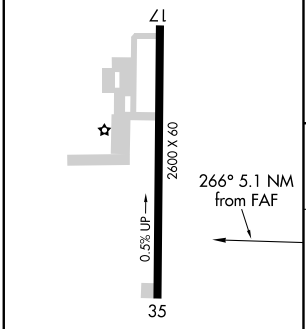
⚠ NA

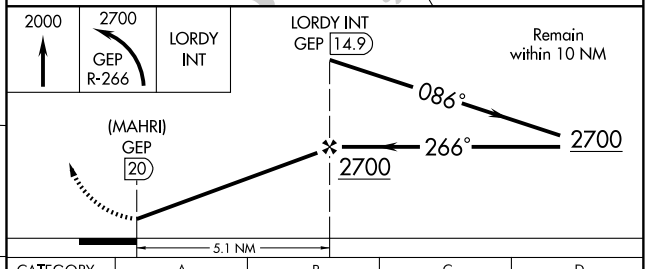
Use Princeton altimeter setting.

MISSED APPROACH: Climb to 2000 then climbing left turn to 2700 via GEP R-266 to LORDY Int and hold.

AWOS-3	MINNEAPOLIS APP CON	GCO	UNICOM
120.45	126.5 357.4	121.725	122.8 (CTAF)







FAF to MAP 5.1 NM					
Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

CATEGORY	A	B	C	D
CIRCLING	1560-1	593 (600-1)	1560-1½ 593 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS		
314°	Rwy Idg	3499
	TDZE	1179
	Apt Elev	1179

GPS RWY 31

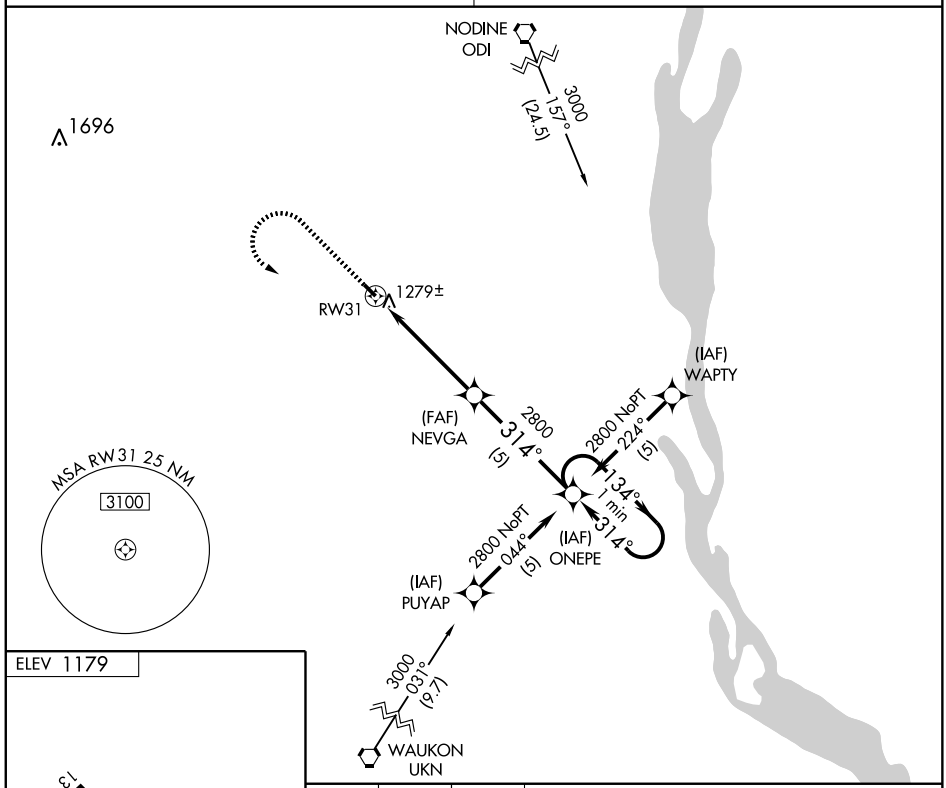
CALEDONIA/HOUSTON COUNTY (CHU)

NA

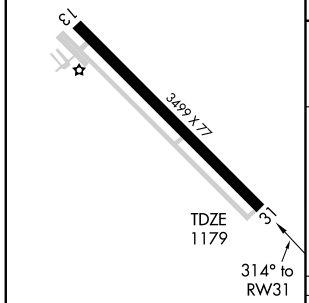
Use La Crosse, WI altimeter setting.

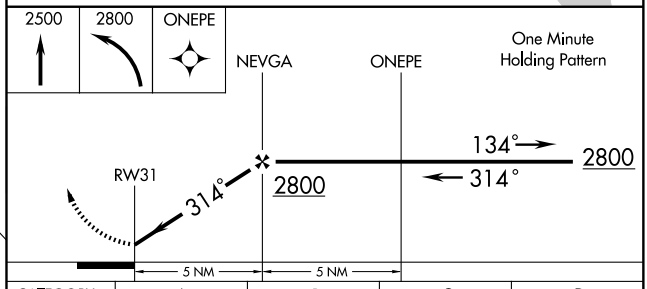
MISSED APPROACH: Climb to 2500 then climbing left turn to 2800 direct ONEPE WP and hold.

MINNEAPOLIS CENTER	CTAF
128.6 363.0	122.9 L



ELEV 1179





CATEGORY	A	B	C	D
S-31	1660-1	481 (500-1)	1660-1¼ 481 (500-1¼)	NA
CIRCLING	1820-1	641 (700-1)	1820-1¾ 641 (700-1¾)	NA

MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VORTAC ODI 117.9 Chan 126	APP CRS 184°	Rwy Idg N/A TDZE N/A Apt Elev 1179

VOR/DME or GPS-A

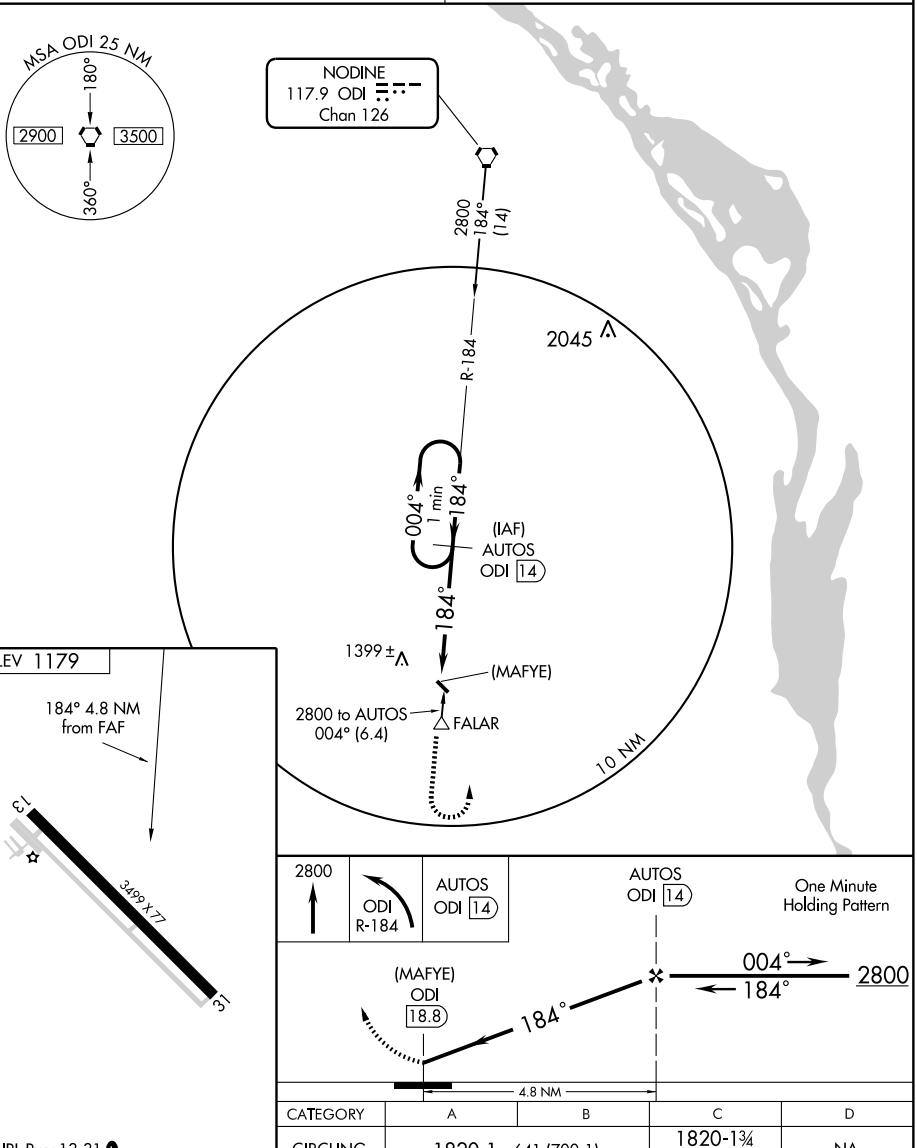
CALEDONIA/HOUSTON COUNTY (CHU)

NA

Use La Crosse, WI altimeter setting.

MISSED APPROACH: Climb to 2800 then left turn via ODI R-184 to AUTOS/14 DME and hold.

MINNEAPOLIS CENTER	CTAF
128.6 363.0	122.9 L



CATEGORY	A	B	C	D
CIRCLING	1820-1	641 (700-1)	1820-1¾ 641 (700-1¾)	NA

MIRL Rwy 13-31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB CBG	APP CRS	Rwy Idg	4000
350	350°	TDZE	945
		Apt Elev	945

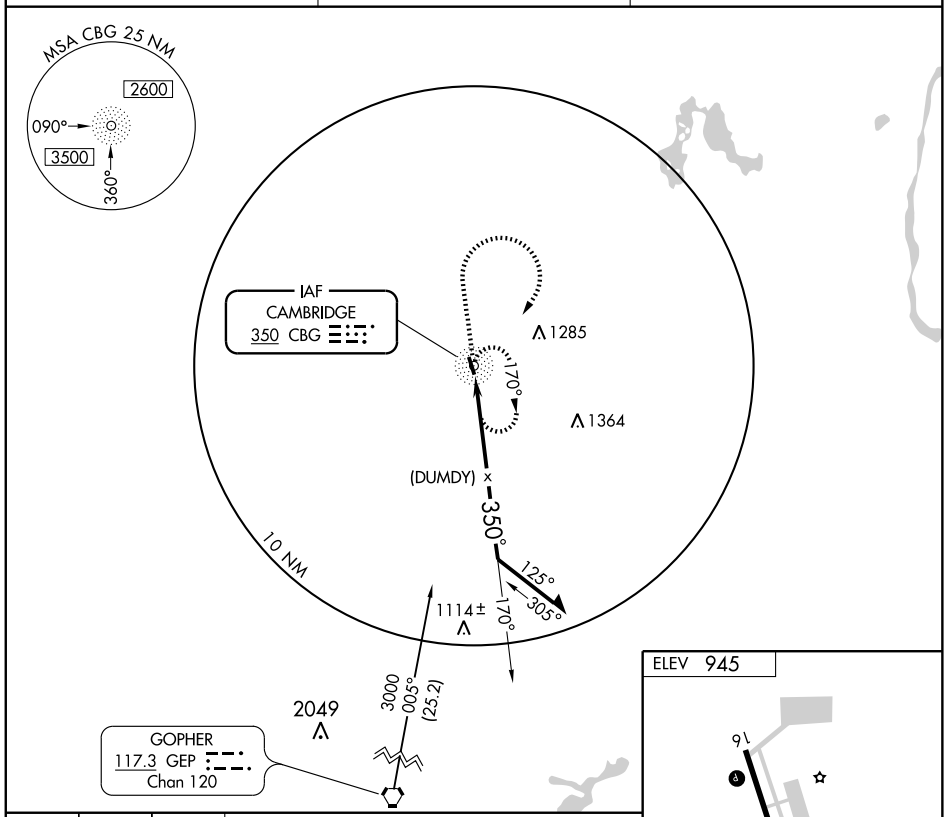
NDB or GPS RWY 34

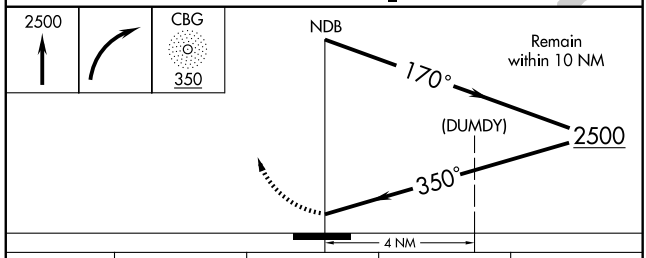
CAMBRIDGE MUNI (CBG)

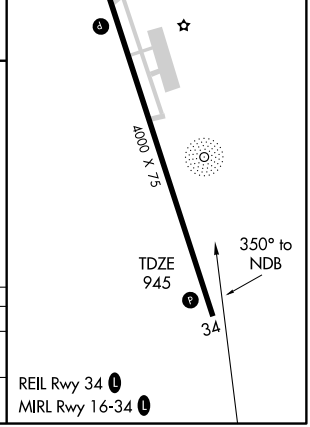
NA

MISSED APPROACH: Climb to 2500 then right turn direct CBG NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
121.125	121.05 397.9	122.8 (CTAF) L







REIL Rwy 34 L
MIRL Rwy 16-34 L

CATEGORY	A	B	C	D
S-34	1480-1	535 (600-1)	1480-1½ 535 (600-1½)	NA
CIRCLING	1480-1	535 (600-1)	1480-1½ 535 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

ILS or LOC/DME RWY 31

LOC I-RYM	APCH CRS	Rwy ldg 6100 TDZE 1149 Arpt Elev 1152
111.1	312°	

AL-5226 [USA]

RAY S. MILLER AAF (KRYM)

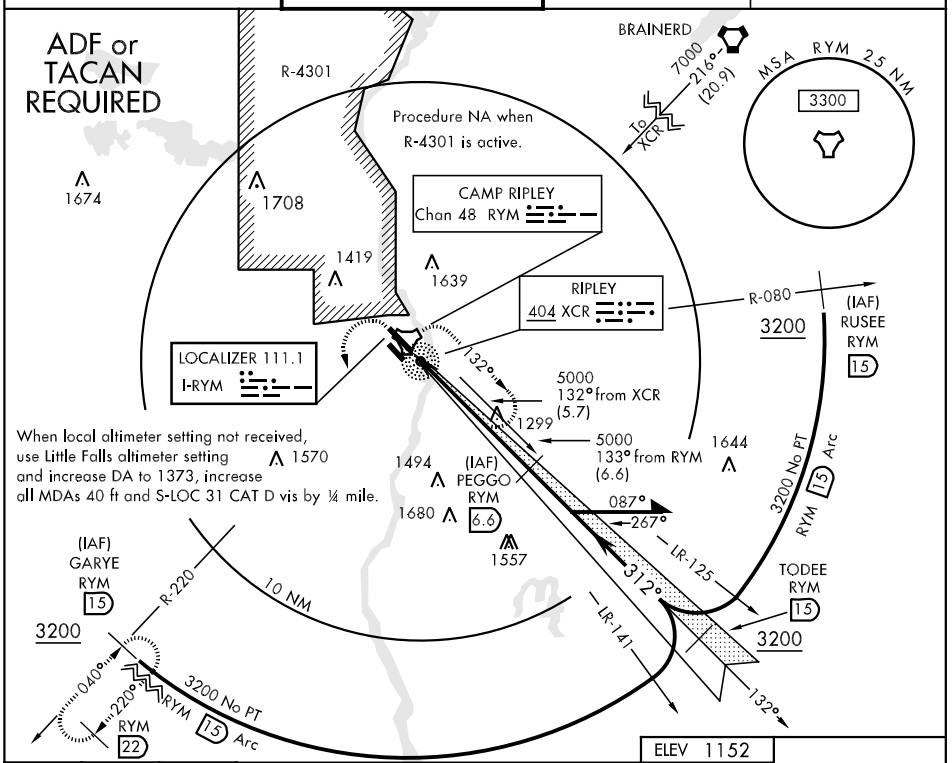
NA * When ALS inop, increase CAT D vis ¼mile.

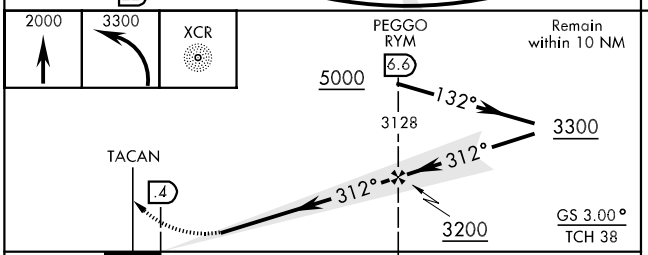
MALSF

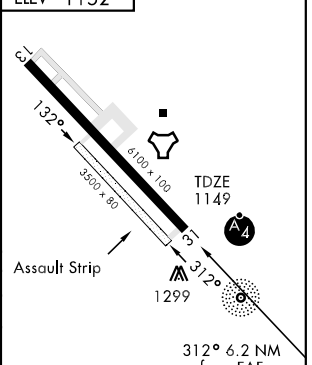
MISSED APPROACH: Climb to 2000, then climbing left turn to 3300 direct XCR NDB and hold. (TACAN equipped acft climb to 2000, then climbing left turn to 4200 via RYM R-220 to GARYE 15 DME and hold).

MINNEAPOLIS CENTER	MILLER TOWER ★	CLNC DEL	AWOS-3
118.05 239.0	254.4 126.2 (L) 49.2	126.2	148.35

ADF or TACAN REQUIRED







CATEGORY	A	B	C	D
S-ILS 31	1349-¾ 200 (200-¾)			
S-LOC 31 *	1580-¾ 431 (500-¾)		1580-1 431 (500-1)	1580-1¼ 431 (500-1¼)
CIRCLING	1620-1 468 (500-1)	1640-1 488 (500-1)	1640-1½ 488 (500-1½)	1720-2 568 (600-2)

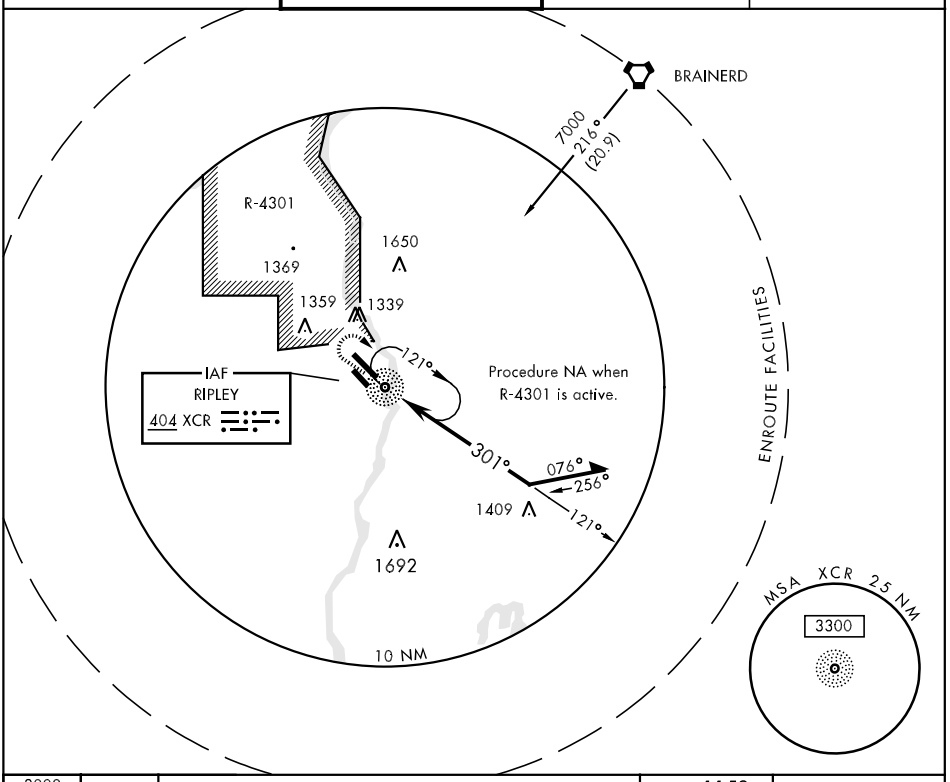
HIRL Rwy 13-31 (L)

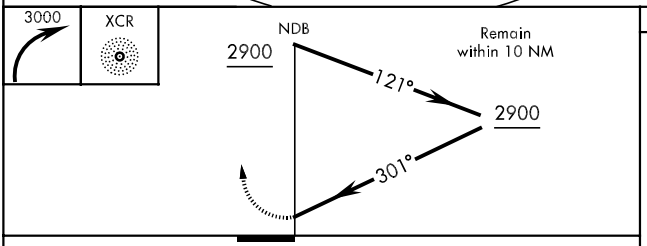
NDB RWY 31

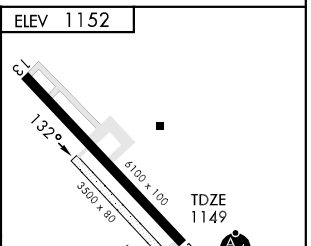
NDB XCR 404	APCH CRS 301°	Rwy Idg 6100 TDZE 1149 Arpt Elev 1152	AL-5226 [USA]	RAY S. MILLER AAF (KRYM)

T A NA	When local altimeter setting not received, use Little Falls altimeter setting and increase all MDA 40'. Inop table does not apply to CAT C.	MALSF	MISSED APPROACH: Climbing right turn to 3000 in XCR NDB holding pattern.

MINNEAPOLIS CENTER	MILLER TOWER ★	CLNC DEL	AWOS-3
118.05 239.0	126.2 (L) 254.4 49.2	126.2	148.35







CATEGORY	A		B	C	D
S-31	1760-¾	611	(700-¾)	1760-1¾ 611 (700-1¾)	1760-2 611 (700-2)
CIRCLING	1760-1	608	(700-1)	1760-1¾ 608 (700-1¾)	1760-2 608 (700-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

RNAV (GPS) RWY 13

APCH CRS	Rwy ldg	6100
132°	TDZE	1152
	Arpt Elev	1152

AL-5226 [USA]

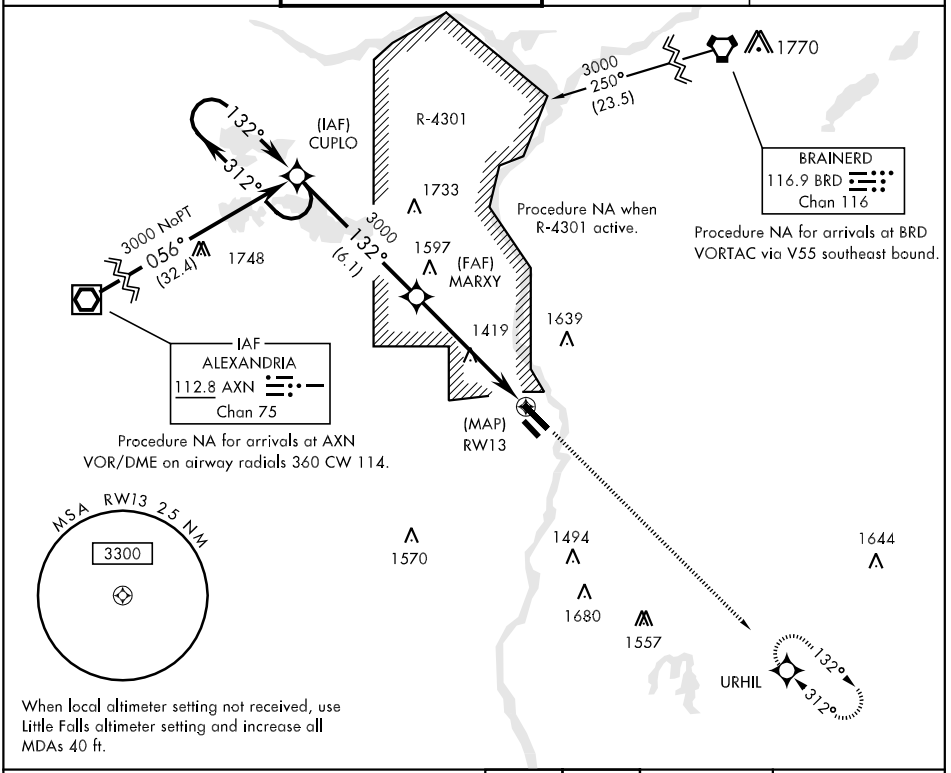
RAY S. MILLER AAF (KRYM)

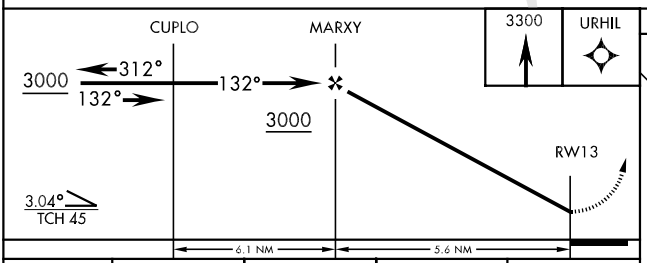
NA

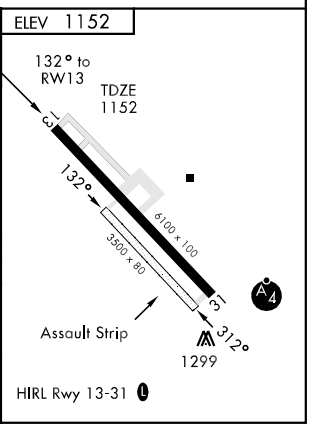
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3300 direct URHIL and hold.

MINNEAPOLIS CENTER	MILLER TOWER ★	CLNC DEL	AWOS-3
118.05 239.0	254.4 126.2 (L) 49.2	126.2	148.35







CATEGORY	A	B	C	D
LNAV MDA	1680-1	528 (600-1)	1680-1½ 528 (600-1½)	1680-1¾ 528 (600-1¾)
CIRCLING	1680-1	528 (600-1)	1680-1½ 528 (600-1½)	1720-2 568 (600-2)

RNAV (GPS) RWY 31

APCH CRS	Rwy ldg	6100
312°	TDZE	1149
	Arpt Elev	1152

AL-5226 [USA]

RAY S. MILLER AAF (KRYM)

NA

* When ALS inop, increase CAT D vis ¼ mile.
DME/DME RNP-0.3 NA.

MALS

MISSED APPROACH: Climbing right turn to 3300 direct URHIL WPT and hold.

MINNEAPOLIS CENTER	MILLER TOWER ★	CLNC DEL	AWOS-3
118.05 239.0	254.4 126.2 (L) 49.2	126.2	148.35

R-4301

When local altimeter setting not received, use Little Falls altimeter setting and increase all MDAs 40 ft.

Procedure NA when R-4301 is active.

1419 1639 1570 1494 1680 1557 1299 1644 1610

(MAP) RW31

(FAF) PEGGO

(IAF) GITTI 3300

NoPT 3300 234° (8.5)

3200 312° (6.1)

(IAF) URHIL

132° 312°

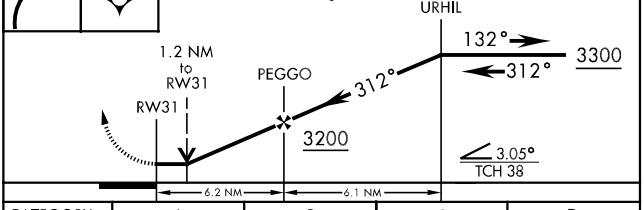
NoPT 3300 037° (15.6)

(IAF) INONY 3300

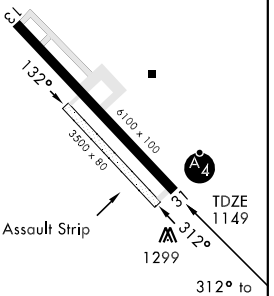
MSA RW31 25 NM 3300

3300 URHIL

VDP NA when using Little Falls altimeter setting.



ELEV 1152



HIRL Rwy 13-31 (L)

CATEGORY	A	B	C	D
LNAV MDA *	1580- ¾ 431 (500-¾)		1580-1 431 (500-1)	1580-1¼ 431 (500-1¼)
CIRCLING	1620-1 468 (500-1)	1640-1 488 (500-1)	1640-1½ 488 (500-1½)	1720-2 568 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

TACAN RWY 13

TACAN RYM Chan 48	APCH CRS 128°	Rwy ldg 6100 TDZE 1152 Arpt Elev 1152

AL-5226 [USA]

RAY S. MILLER AAF (KRYM)

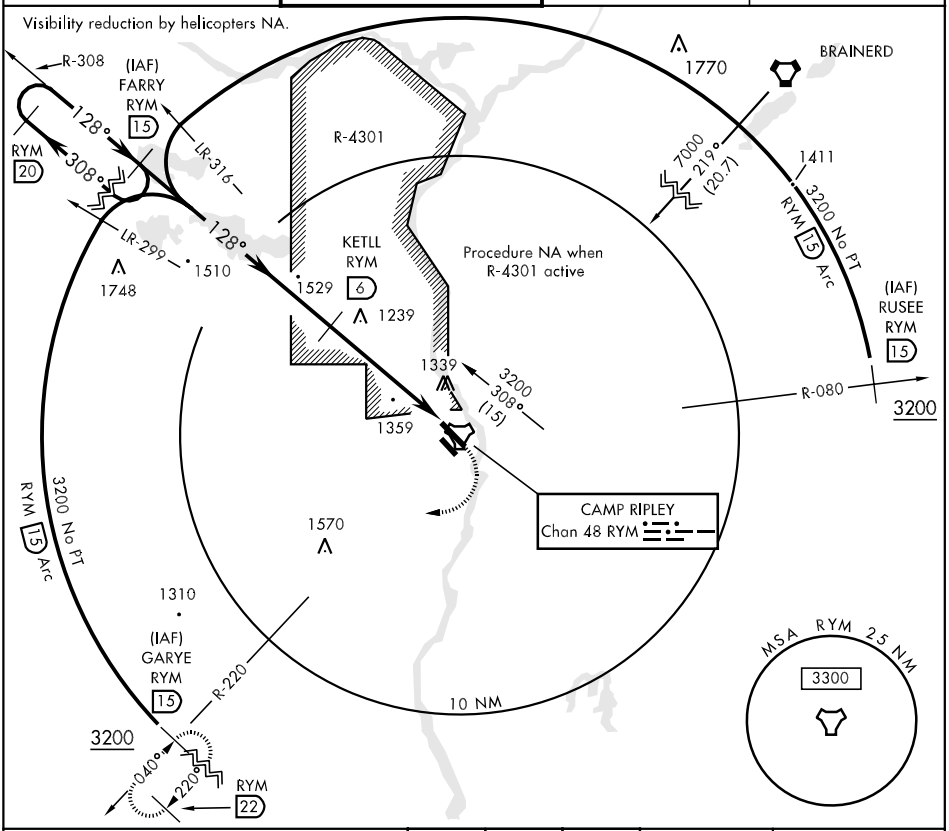
When local altimeter setting not received, use Little Falls altimeter setting and increase all MDA 40'.

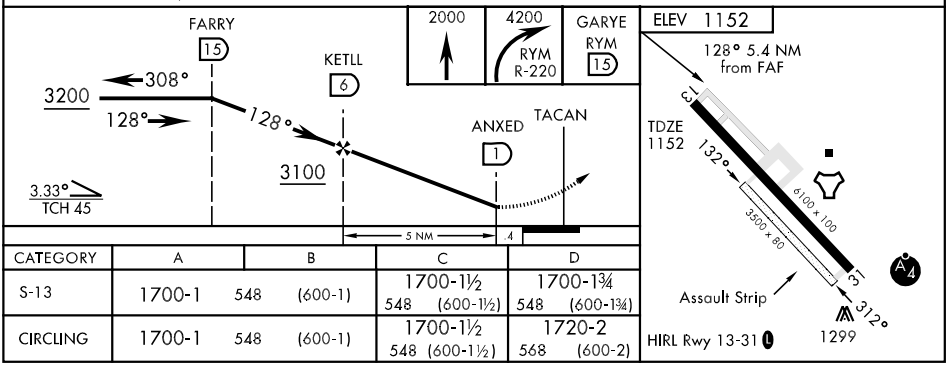
NA

MISSED APPROACH: Climb to 2000 then climbing right turn to 4200 via RYM TACAN R-220 to GARYE (15 DME) and hold.

MINNEAPOLIS CENTER	MILLER TOWER ★	CLNC DEL	AWOS-3
118.05 239.0	126.2 (L) 254.4 49.2	126.2	148.35

Visibility reduction by helicopters NA.





CATEGORY	A		B	C	D
S-13	1700-1	548	(600-1)	1700-1½ 548 (600-1½)	1700-1¾ 548 (600-1¾)
CIRCLING	1700-1	548	(600-1)	1700-1½ 548 (600-1½)	1720-2 568 (600-2)

TACAN RWY 31

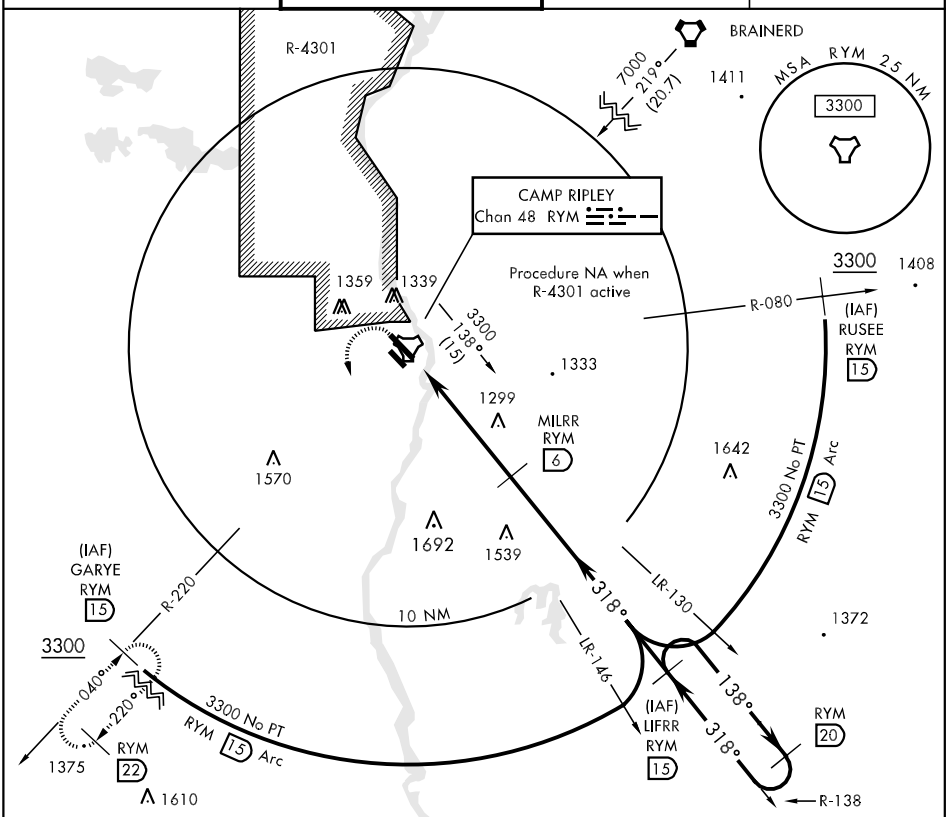
TACAN RYM Chan 48	APCH CRS 318°	Rwy ldg 6100 TDZE 1149 Arpt Elev 1152	AL-5226 [USA]	RAY S. MILLER AAF (KRYM)

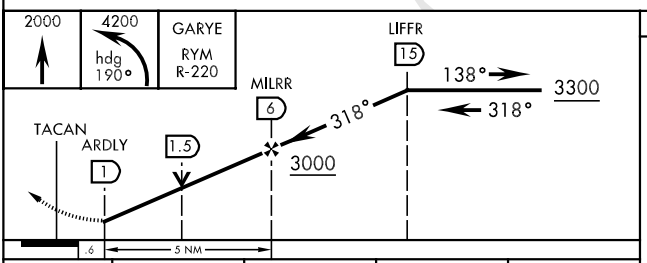
When local altimeter setting not received, use Little Falls altimeter setting and increase all MDA 40' and INCR S-31 CAT D vis ¼ mile.
NA Inop table does not apply to CAT C.

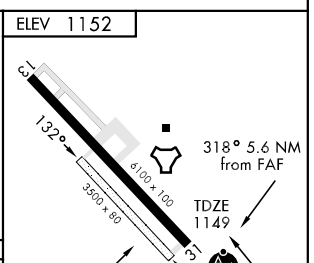
MALSF

MISSED APPROACH: Climb to 2000 then climbing left turn to 4200 via hdg 190° and RYM R-220 to GARYE (15 DME) and hold.

MINNEAPOLIS CENTER	MILLER TOWER ★	CLNC DEL	AWOS-3
118.05 239.0	126.2 (L) 254.4 49.2	126.2	148.35







CATEGORY	A	B	C	D
S-31	1560-¾ 411 (500-¾)		1560-1¼ 411 (500-1¼)	
CIRCLING	1620-1 468 (500-1)	1640-1 488 (500-1)	1640-1½ 488 (500-1½)	1720-2 568 (600-2)

APP CRS	Rwy Idg	4648
115°	TDZE	1193
	Apt Elev	1193

RNAV (GPS) RWY 12

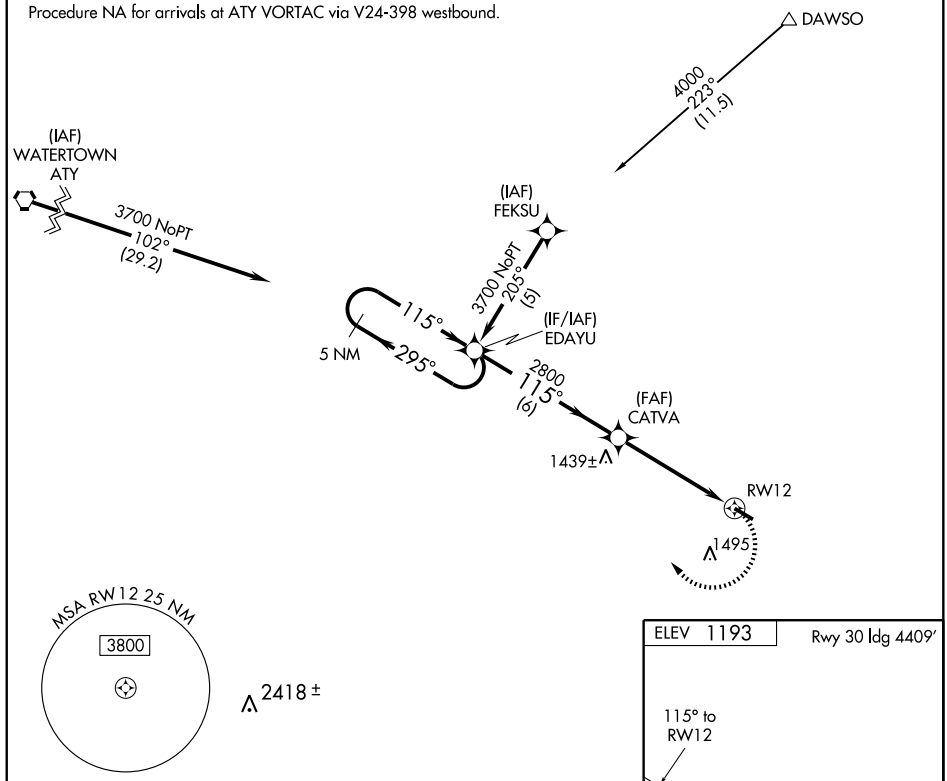
CANBY/MYERS FIELD (CNB)

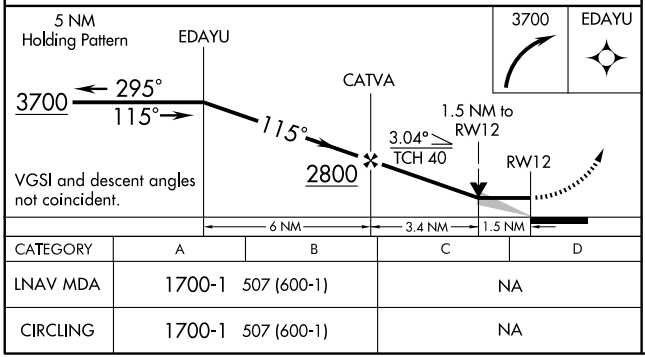
DME/DME RNP-0.3 NA.
VDP NA when using Lac Qui Parle County altimeter setting.
If local altimeter setting not received, use Lac Qui Parle County altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climbing right turn to 3700 direct EDAYU and hold.

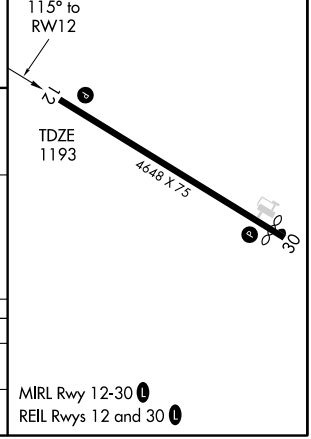
AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
118.575	128.5 306.2	121.725	122.9 L

Procedure NA for arrivals at ATY VORTAC via V24-398 westbound.





CATEGORY	A	B	C	D
LNAV MDA	1700-1	507 (600-1)	NA	
CIRCLING	1700-1	507 (600-1)	NA	



MIRL Rwy 12-30 L
REIL Rwys 12 and 30 L

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS		
295°	Rwy Idg	4409
	TDZE	1191
	Apt Elev	1193

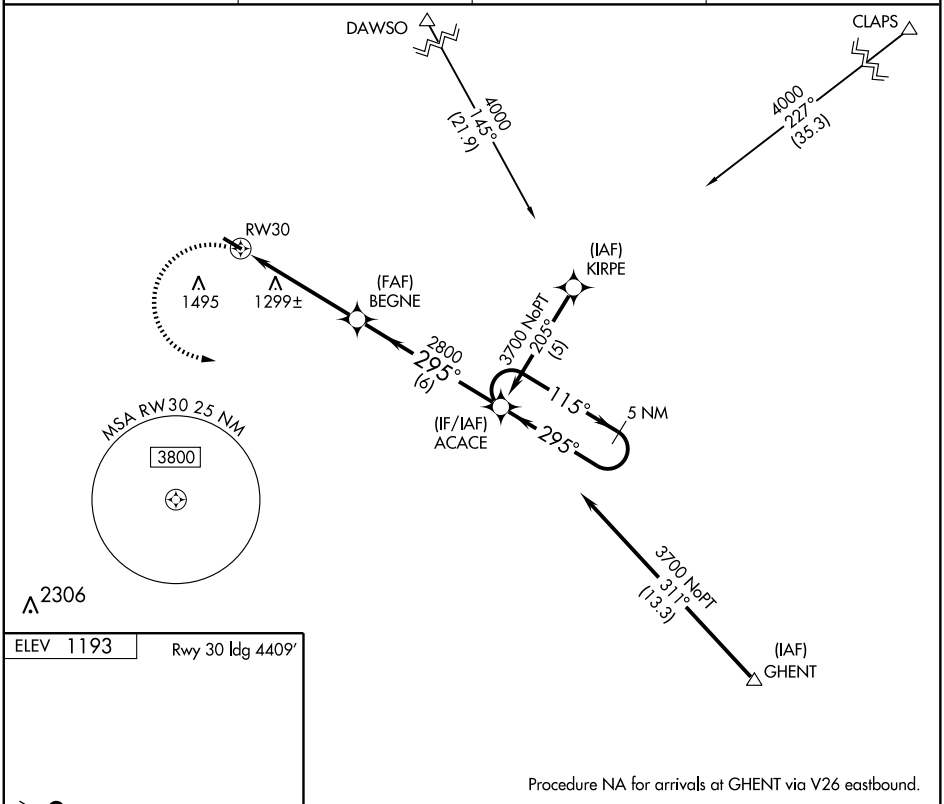
RNAV (GPS) RWY 30

CANBY/MYERS FIELD (CNB)

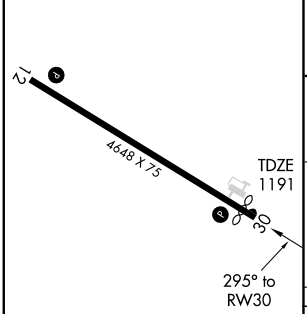
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.
If local altimeter setting not received, use Lac Qui Parle County altimeter setting and increase all MDAs 60 feet.

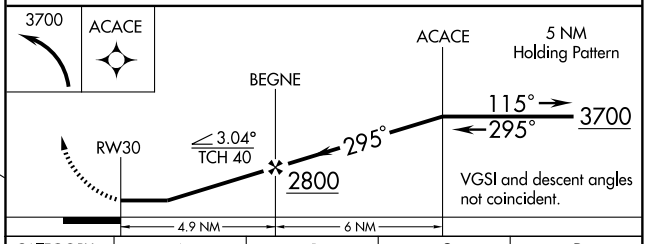
MISSED APPROACH: Climbing left turn to 3700 direct ACACE and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
118.575	128.5 306.2	121.725	122.9 L



Procedure NA for arrivals at GHENT via V26 eastbound.





CATEGORY	A	B	C	D
LNAV MDA	1600-1	409 (500-1)	NA	
CIRCLING	1600-1 407 (500-1)	1660-1 467 (500-1)	NA	

MIRL Rwy 12-30 L
REIL Rwys 12 and 30 L

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB COQ	APP CRS	Rwy Idg	4003
335	172°	TDZE	1274
		Apt Elev	1279

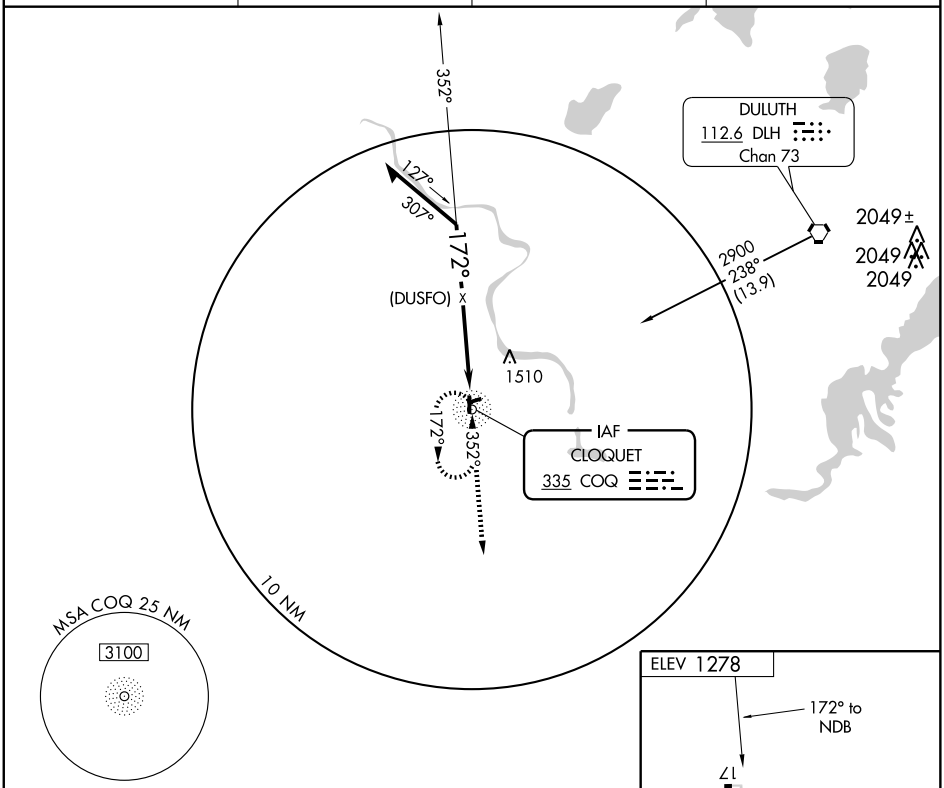
NDB or GPS RWY 17

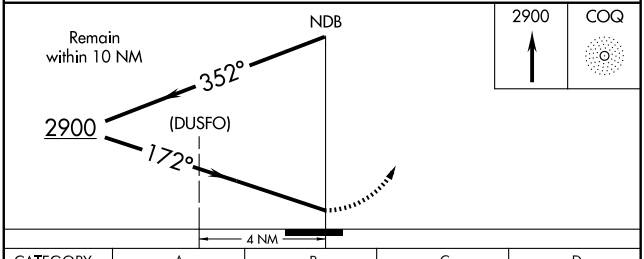
CLOQUET CARLTON COUNTY (COQ)

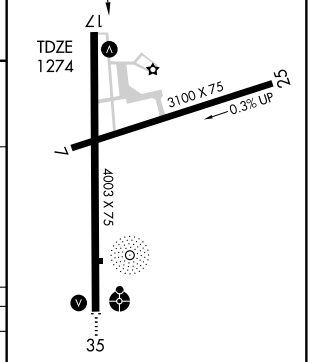
NA

MISSED APPROACH: Climb to 2900 then direct COQ NDB and hold.

AWOS-3	DULUTH APP CON ★	CLNC DEL	UNICOM
118.525	125.45 255.9	122.15	122.8 (CTAF) L







MIRL Rwys 7-25 and 17-35 L

REIL Rwy 17 L

CATEGORY	A	B	C	D
S-17	1860-1	586 (600-1)	1860-1½ 586 (600-1½)	NA
CIRCLING	1860-1	582 (600-1)	1860-1½ 582 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB COQ 335	APP CRS 005°	Rwy Idg 4003 TDZE 1278 Apt Elev 1279

NDB RWY 35

CLOQUET CARLTON COUNTY (COQ)

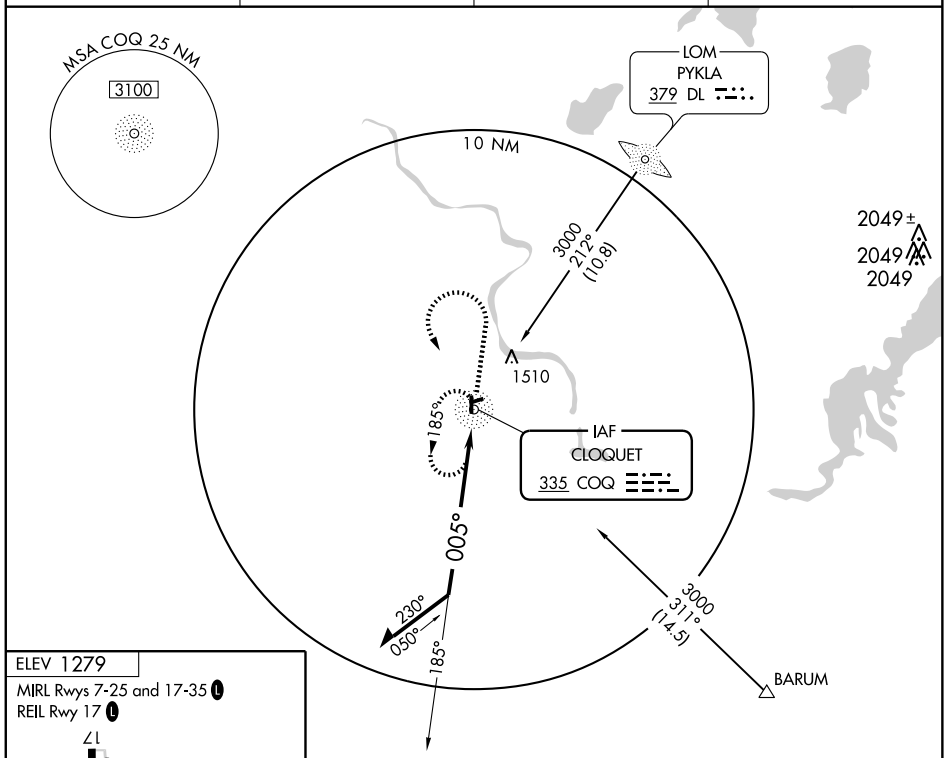
When local altimeter setting not received, use Duluth Intl altimeter setting and increase all MDAs 60 feet and increase S-35 and Circling Cat. C visibilities ¼ mile.

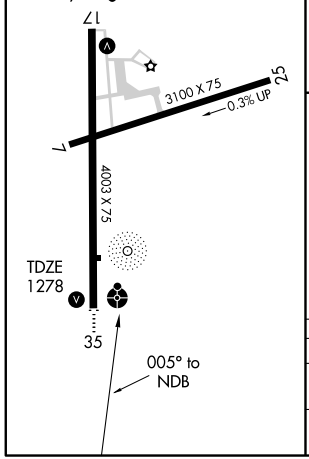
NA

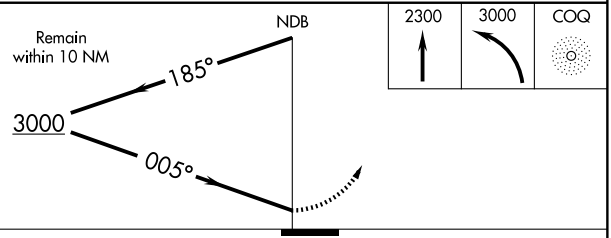
ODALS

MISSED APPROACH: Climb to 2300 then climbing left turn to 3000 direct COQ NDB and hold, continue climb-in-hold to 3000.

AWOS-3	DULUTH APP CON ★	CLNC DEL	UNICOM
118.525	125.45 255.9	122.15	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-35	1860-1	582 (600-1)	1860-1½ 582 (600-1½)	NA
CIRCLING	1860-1	581 (600-1)	1860-1½ 581 (600-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4003
356°	TDZE	1278
	Apt Elev	1279

RNAV (GPS) RWY 35

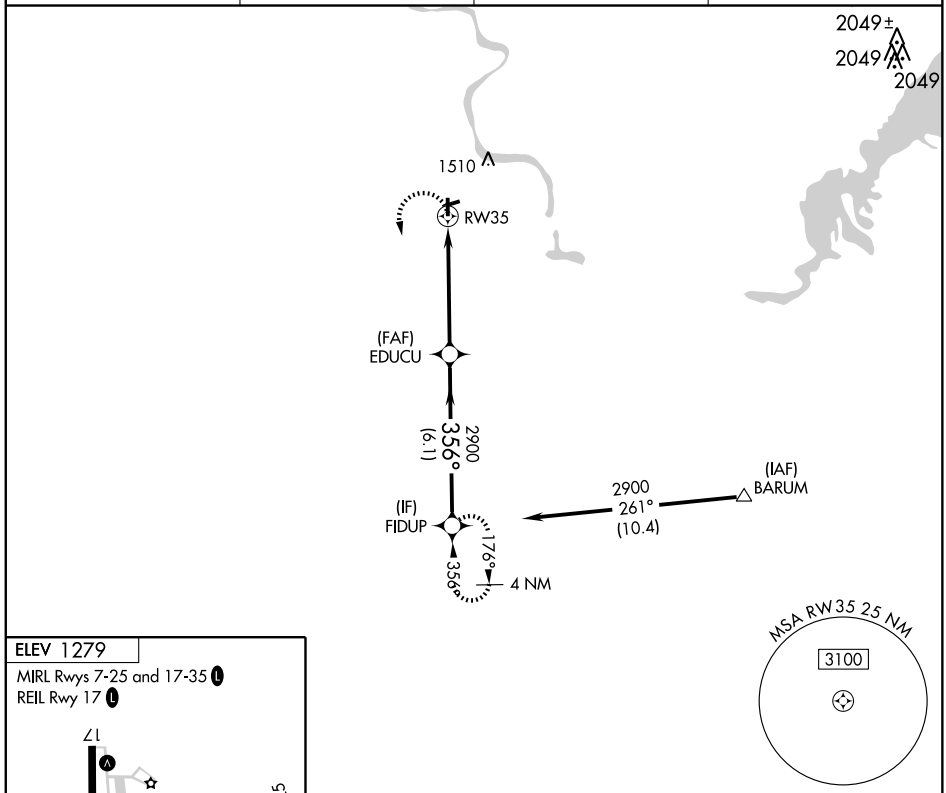
CLOQUET CARLTON COUNTY (COQ)

DME/DME RNP-0.3 NA.
VDP NA when using Duluth Intl altimeter setting.
When local altimeter setting not received, use Duluth Intl altimeter setting and increase all MDAs 60 feet and Cat. C Circling visibility ¼ mile.

ODALS

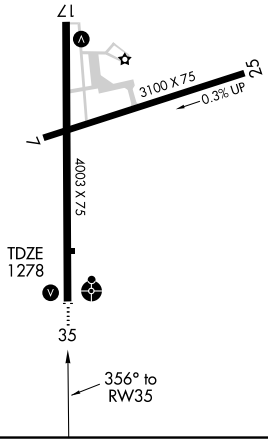
MISSED APPROACH: Climbing left turn to 2900 direct FIDUP and hold.

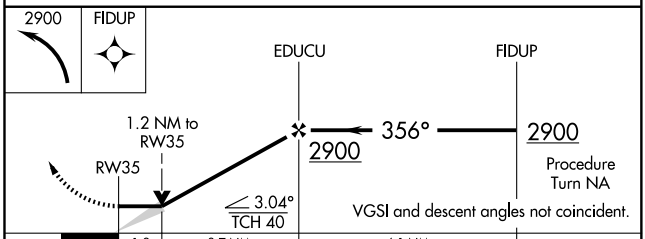
AWOS-3	DULUTH APP CON ★	CLNC DEL	UNICOM
118.525	125.45 255.9	122.15	122.8 (CTAF) L



ELEV 1279

MIRL Rwys 7-25 and 17-35 L
REIL Rwy 17 L





CATEGORY	A	B	C	D
LNAV MDA	1680-1 402 (500-1)		1680-1¼ 402 (500-1¼)	NA
CIRCLING	1740-1 461 (500-1)	1780-1 501 (600-1)	1860-1½ 581 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

VORTAC DLH	APP CRS	Rwy Idg	N/A
112.6	059°	TDZE	N/A
Chan 73		Apt Elev	1279

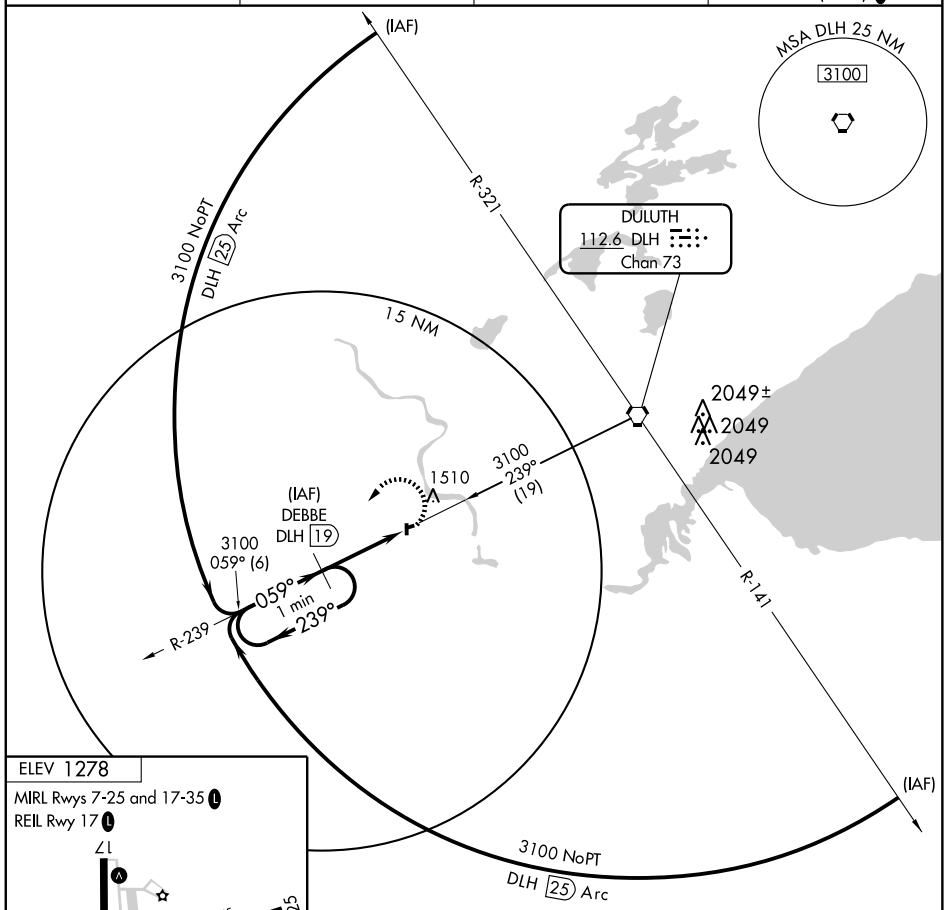
VOR/DME-A

CLOQUET CARLTON COUNTY (COQ)

NA

MISSED APPROACH: Climbing left turn to 3100 via DLH R-239 to DEBBE DLH 19 DME and hold.

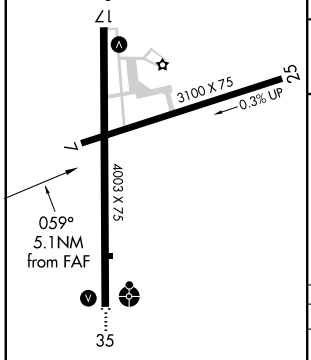
AWOS-3	DULUTH APP CON ★	CLNC DEL	UNICOM
118.525	125.45 255.9	122.15	122.8 (CTAF) L

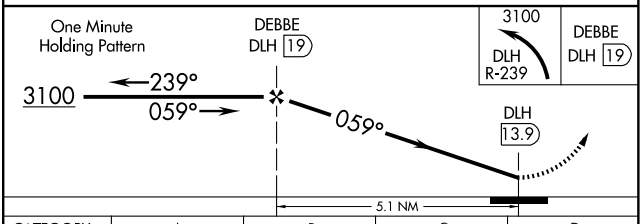


ELEV 1278

MIRL Rwys 7-25 and 17-35 L

REIL Rwy 17 L





CATEGORY	A	B	C	D
CIRCLING	1740-1 462 (500-1)	1760-1 482 (500-1)	1760-1½ 482 (500-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

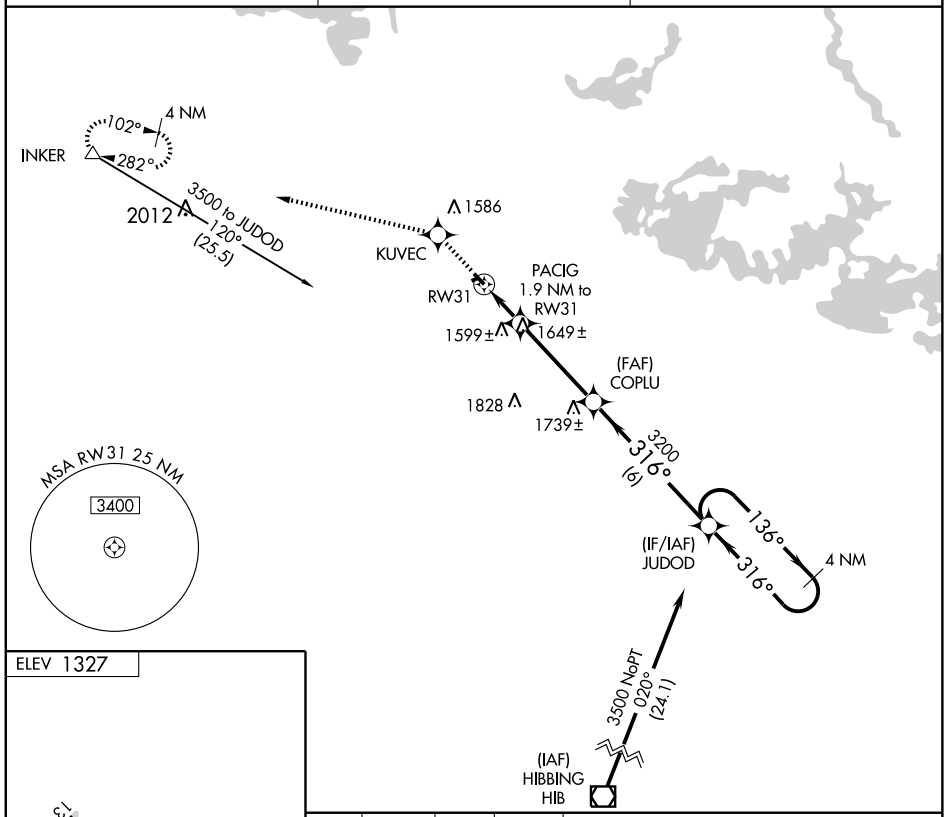
APP CRS	Rwy Idg	3200
316°	TDZE	1327
	Apt Elev	1327

RNAV (GPS) RWY 31
COOK MUNI (CQM)

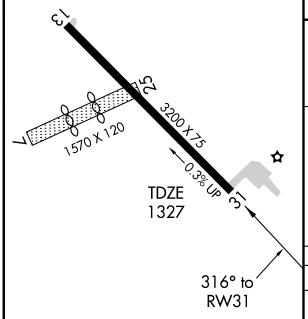
DME/DME RNP- 0.3 NA.
Procedure NA at night.

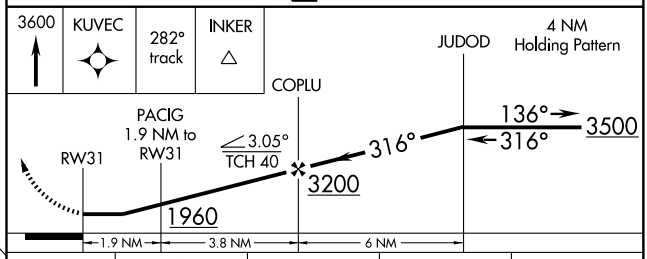
MISSED APPROACH: Climb to 3600 direct KUVEC and via 282° track to INKER and hold.

AWOS-3	PRINCETON RADIO	CTAF
118.175	122.45	122.9



ELEV 1327





CATEGORY	A	B	C	D
LNAV MDA	1820-1 493 (500-1)		NA	
CIRCLING	1900-1 573 (600-1)		NA	

MIRL Rwy 13-31

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB CKN	APP CRS	Rwy Idg	4300
400	122°	TDZE	896
		Apt Elev	900

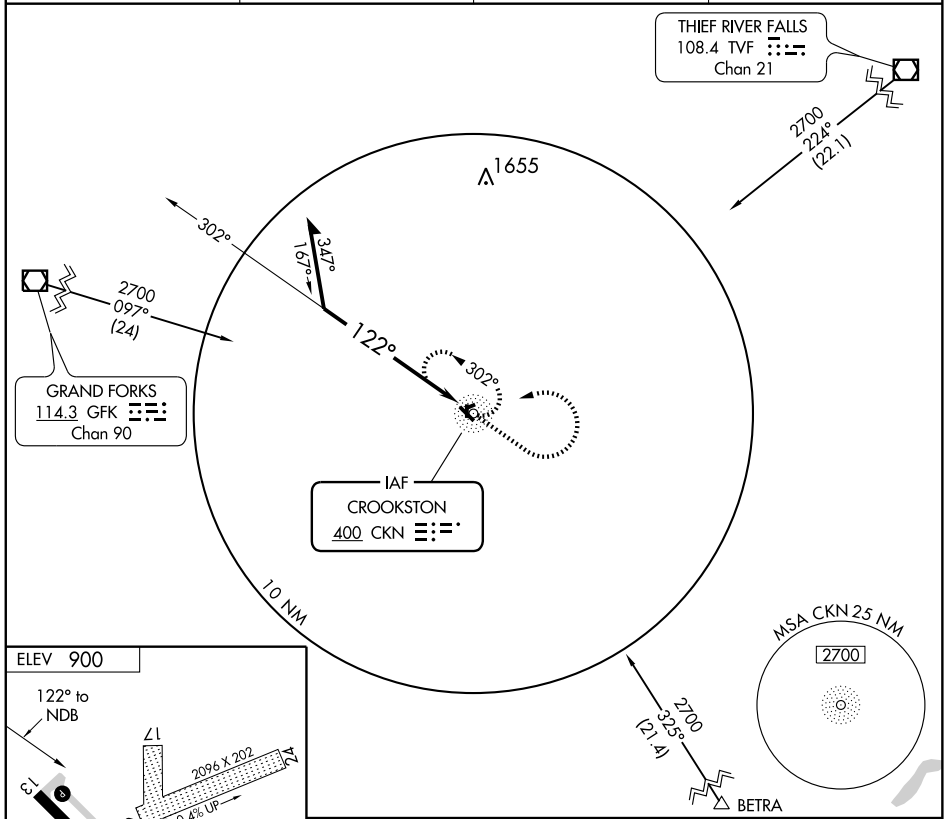
NDB RWY 13

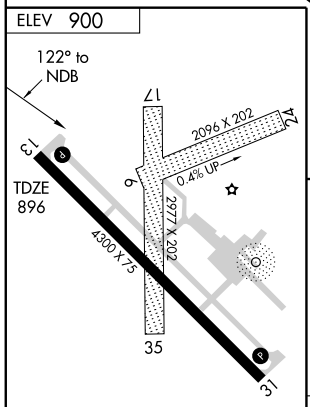
CROOKSTON MUNI-KIRKWOOD FIELD (CKN)

When local altimeter setting not received, use Grand Forks Intl altimeter setting and increase all MDA 80 feet, increase all Cat C visibities ¼ mile.

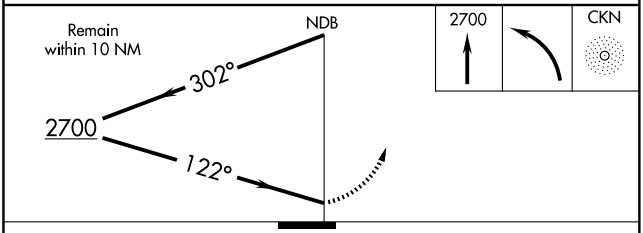
MISSED APPROACH: Climb to 2700 then left turn direct CKN NDB and hold.

AWOS-3	GRAND FORKS APP CON	CLNC DEL	UNICOM
400	118.1 318.1	118.15	122.7 (CTAF) L





REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L



CATEGORY	A	B	C	D
S-13	1440-1	544 (600-1)	1440-1½ 544 (600-1½)	NA
CIRCLING	1440-1	540 (600-1)	1440-1½ 540 (600-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 72704 W13A	APP CRS 128°	Rwy Idg 4300 TDZE 896 Apt Elev 900

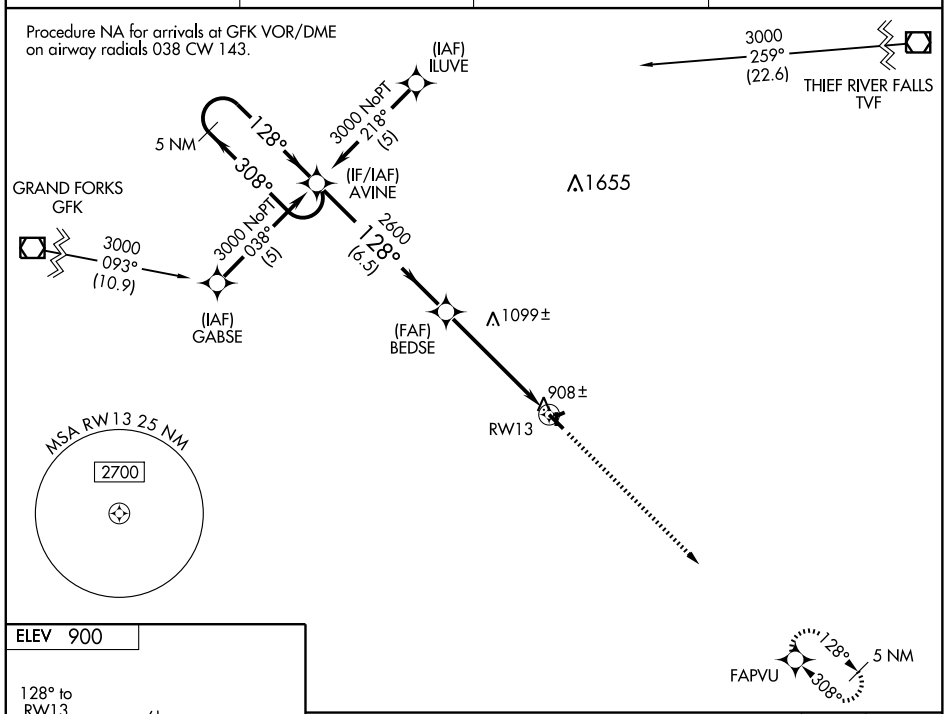
RNAV (GPS) RWY 13

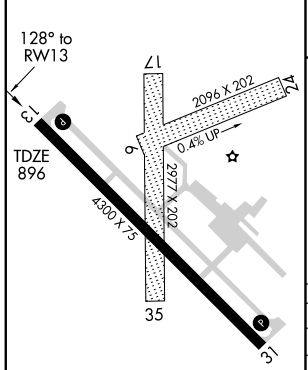
CROOKSTON MUNI-KIRKWOOD FIELD (CKN)

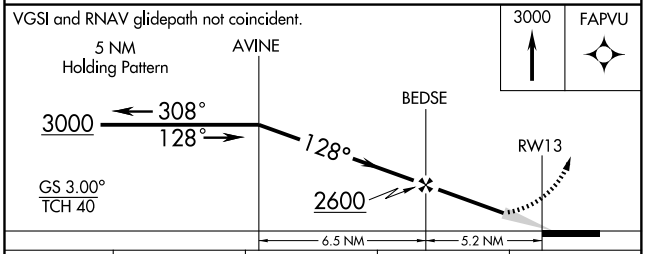
Baro-VNAV NA when using Grand Forks altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA.
If local altimeter setting not received, use Grand Forks altimeter setting and increase all DAs 62 feet and all MDAs 80 feet.

MISSED APPROACH: Climb to 3000 direct FAPVU and hold.

AWOS-3	GRAND FORKS APP CON	CLNC DEL	UNICOM
400	118.1 318.1	118.15	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1146-1 250 (300-1)			NA
LNAV/VNAV DA	1210-1 314 (400-1)			NA
LNAV MDA	1360-1 464 (500-1)		1360-1¼ 464 (500-1¼)	NA
CIRCLING	1360-1 460 (500-1)		1360-1½ 460 (500-1½)	NA

REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 69304 W31A	APP CRS 308°	Rwy Idg 4300 TDZE 897 Apt Elev 900

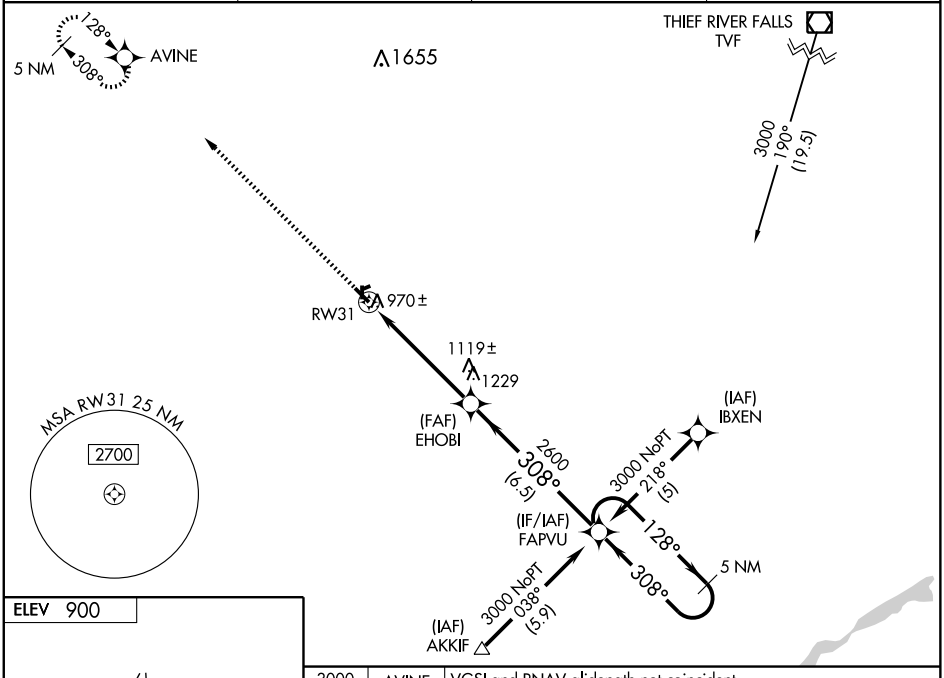
RNAV (GPS) RWY 31

CROOKSTON MUNI-KIRKWOOD FIELD (CKN)

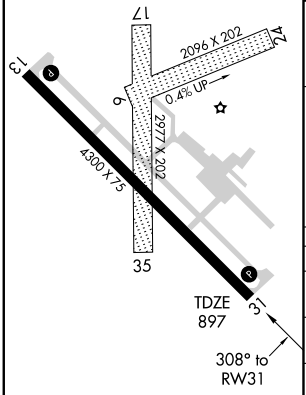
Baro-VNAV NA when using Grand Forks altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F).
If local altimeter setting not received, use Grand Forks altimeter setting and increase all DAs 62 feet and all MDAs 80 feet.
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3000 direct AVINE and hold.

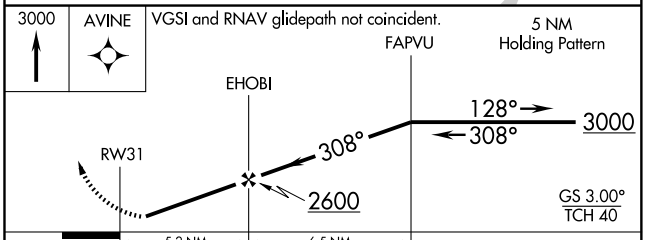
AWOS-3	GRAND FORKS APP CON	CLNC DEL	UNICOM
400	118.1 318.1	118.15	122.7 (CTAF) L



ELEV 900



REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L



CATEGORY	A	B	C	D
LPV DA	1157-1 260 (300-1)			NA
LNAV/VNAV DA	1320-1½ 423 (500-1½)			NA
LNAV MDA	1380-1 483 (500-1)		1380-1¼ 483 (500-1¼)	NA
CIRCLING	1380-1 480 (500-1)		1380-1½ 480 (500-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

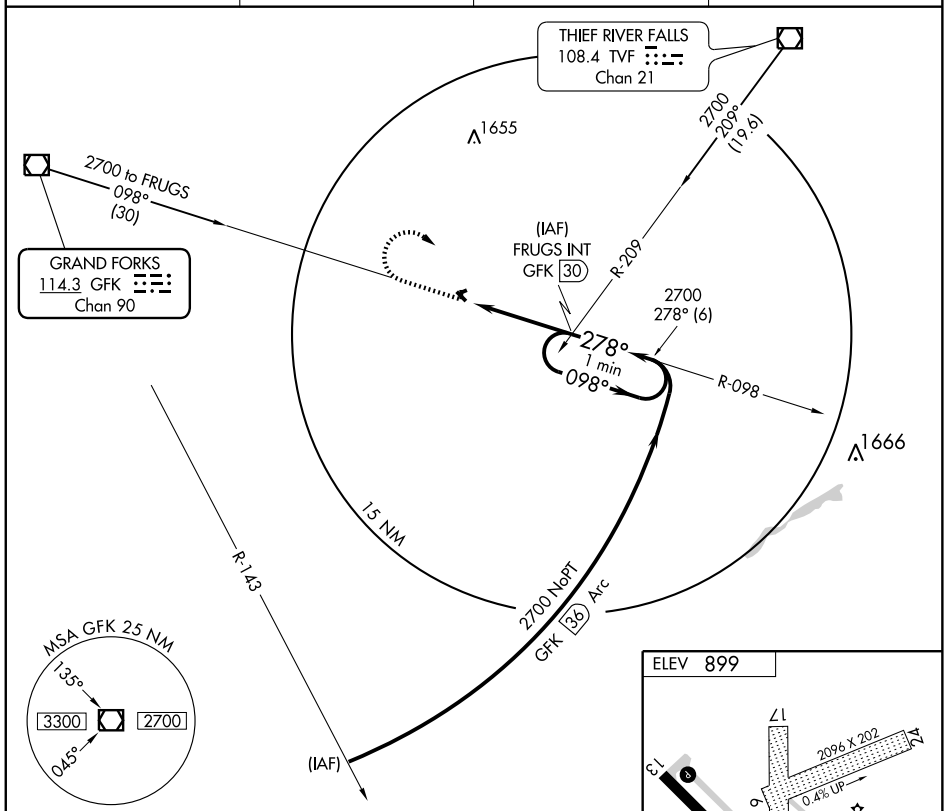
VOR/DME GFK	APP CRS	Rwy Idg	4300
114.3	278°	TDZE	896
Chan 90		Apt Elev	899

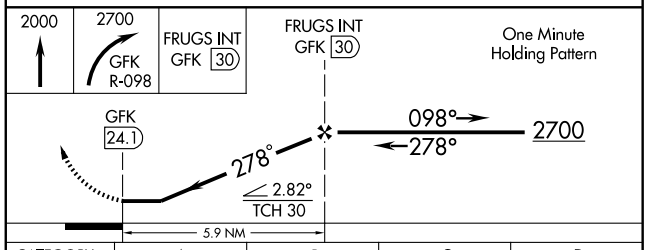
VOR RWY 31

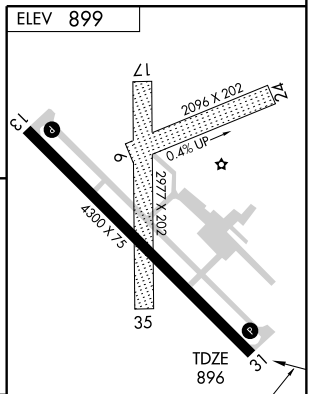
CROOKSTON MUNI-KIRKWOOD FIELD (CKN)

MISSED APPROACH: Climb to 2000 then climbing right turn to 2700 via GFK R-098 to FRUGS Int and hold.

AWOS-3	GRAND FORKS APP CON	CLNC DEL	UNICOM
400	118.1 318.1	118.15	122.7 (CTAF) L







REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L

278° 5.9 NM from FAF

CATEGORY	A	B	C	D
S-31	1700-1 804 (900-1)	1700-1¼ 804 (900-1¼)	1700-2¼ 804 (900-2¼)	NA
CIRCLING	1700-1 801 (900-1)	1700-1¼ 801 (900-1¼)	1700-2¼ 801 (900-2¼)	NA

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4500
135°	TDZE	1397
	Apt Elev	1397

RNAV (GPS) RWY 13

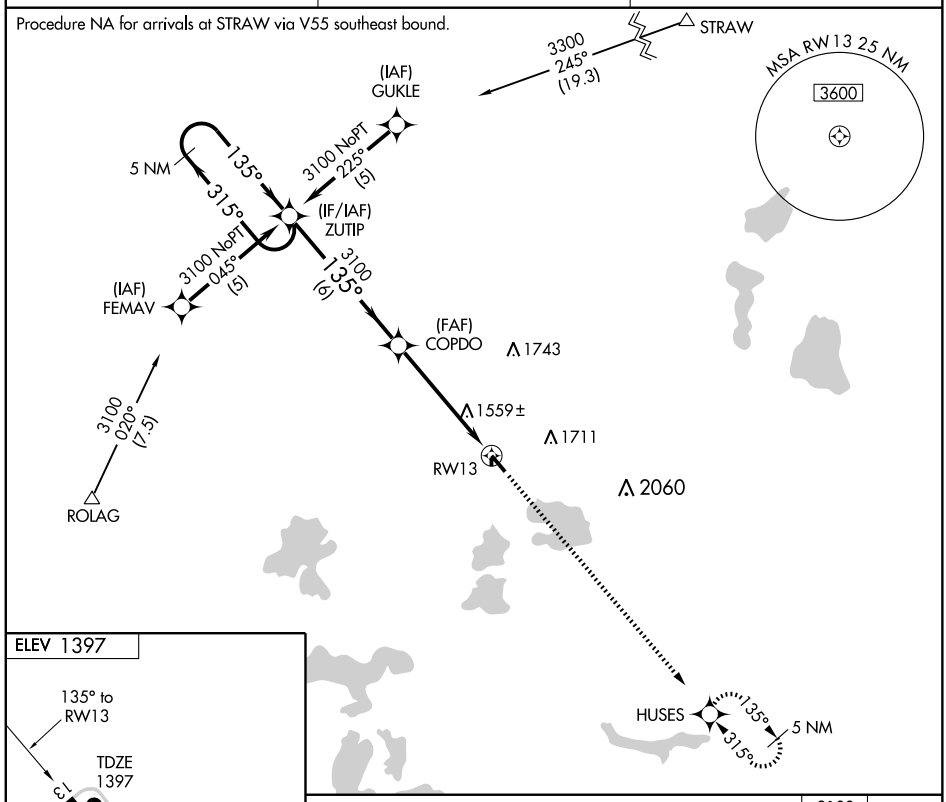
DETROIT LAKES-WETHING FIELD (DTL)

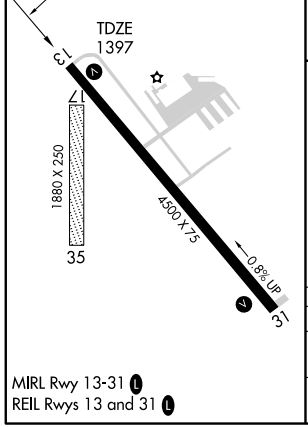
When VGSI inoperative, straight-in/circling Rwy 13 procedure NA at night.
DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA.
If local altimeter setting not received, use Park Rapids altimeter setting and increase DA/MDAs 100 feet.

MISSED APPROACH: Climb to 3100 direct HUSES and hold.

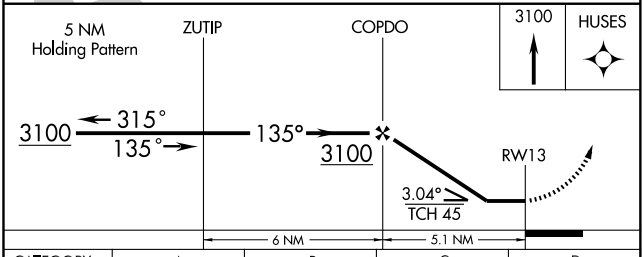
AWOS-3	PRINCETON RADIO	UNICOM
111.2	122.5	122.8 (CTAF) L

Procedure NA for arrivals at STRAW via V55 southeast bound.





MIRL Rwy 13-31 L
REIL Rwys 13 and 31 L



CATEGORY	A	B	C	D
LNAV MDA	1820-1 423 (500-1)		1820-1¼ 423 (500-1¼)	
CIRCLING	1880-1 483 (500-1)	1940-1 543 (600-1)	1940-1½ 543 (600-1½)	2080-2¼ 683 (700-2¼)

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 86704 W31A	APP CRS 315°	Rwy Idg 4500 TDZE 1390 Apt Elev 1397

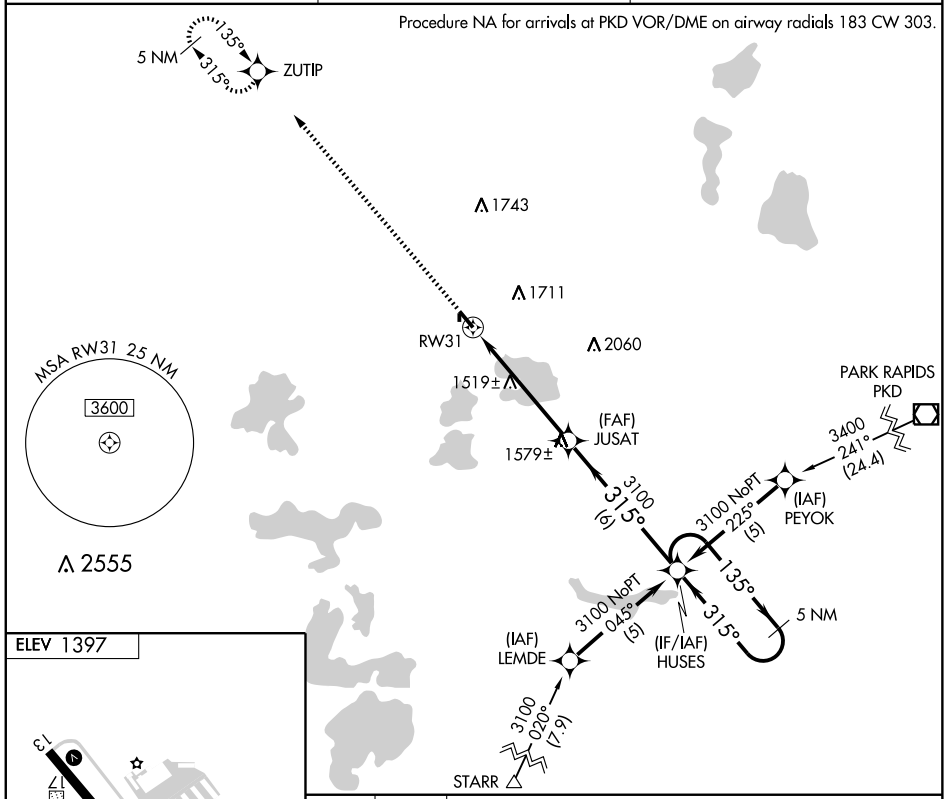
RNAV (GPS) RWY 31
DETROIT LAKES-WETHING FIELD (DTL)

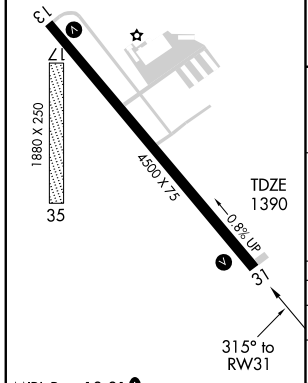
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
VDP NA when using Park Rapids altimeter setting.
If local altimeter setting not received, use Park Rapids altimeter setting and increase DA/MDAs 100 feet.

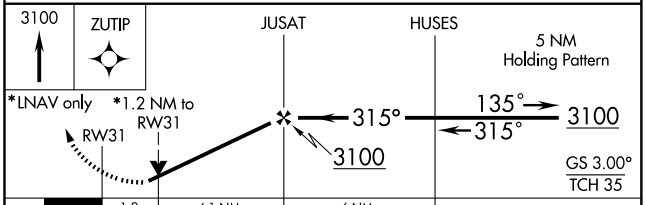
MISSED APPROACH: Climb to 3100 direct ZUTIP and hold.

AWOS-3	PRINCETON RADIO	UNICOM
111.2	122.5	122.8 (CTAF) L

Procedure NA for arrivals at PKD VOR/DME on airway radials 183 CW 303.







CATEGORY	A	B	C	D
LPV DA	1654-1 264 (300-1)			
LNAV MDA	1780-1 390 (400-1)			1780-1¼ 390 (400-1¼)
CIRCLING	1880-1 483 (500-1)	1940-1 543 (600-1)	1940-1½ 543 (600-1½)	2080-2¼ 683 (700-2¼)

MIRL Rwy 13-31 L
REIL Rwys 13 and 31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME DTL	APP CRS	Rwy Idg	4500
111.2	142°	TDZE	1396
Chan 49		Apt Elev	1396

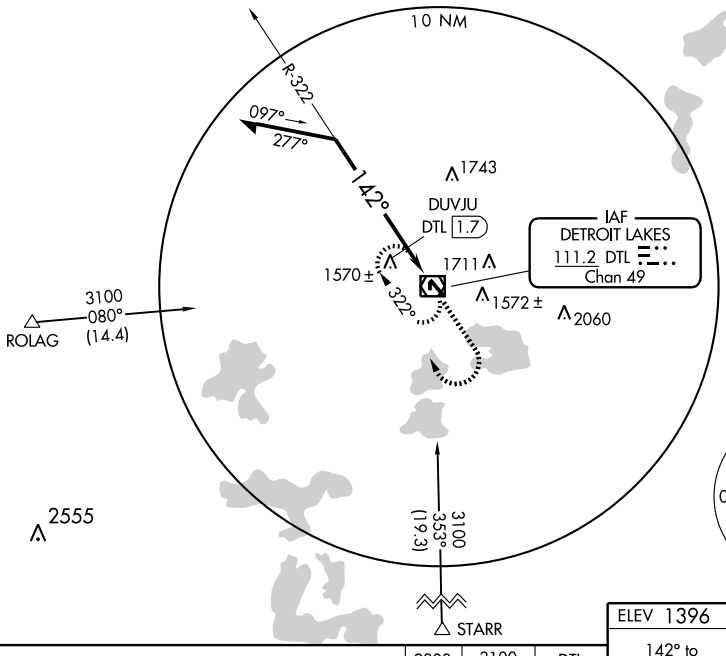
VOR RWY 13

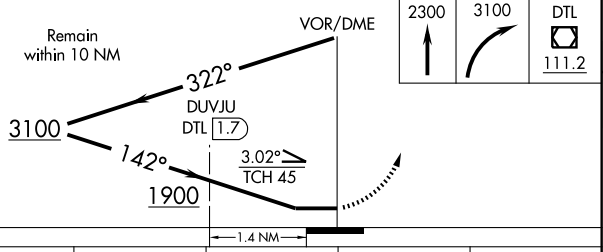
DETROIT LAKES-WETHING FIELD (DTL)

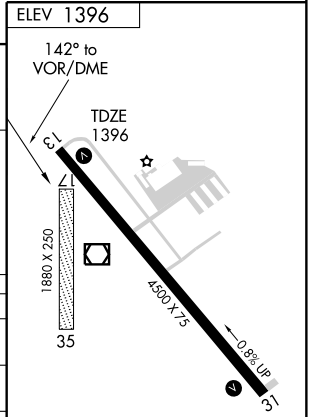
T
NA

MISSED APPROACH: Climb to 2300 then climbing right turn to 3100 direct DTL VOR/DME and hold.

AWOS-3	PRINCETON RADIO	UNICOM
111.2	122.5	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-13	1900-1 504 (600-1)		1900-1½ 504 (600-1½)	
CIRCLING	1900-1 504 (600-1)	1940-1 544 (600-1)	1940-1½ 544 (600-1½)	2080-2¼ 684 (700-2¼)
DUVJU FIX MINIMUMS				
S-13	1820-1 424 (500-1)		1820-1¼ 424 (500-1¼)	
CIRCLING	1880-1 424 (500-1)	1940-1 544 (600-1)	1940-1½ 544 (600-1½)	2080-2¼ 684 (700-2¼)

MIRL Rwy 13-31 L
REIL Rwys 13 and 31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME DTL	APP CRS	Rwy Idg	4500
111.2	310°	TDZE	1388
Chan 49		Apt Elev	1396

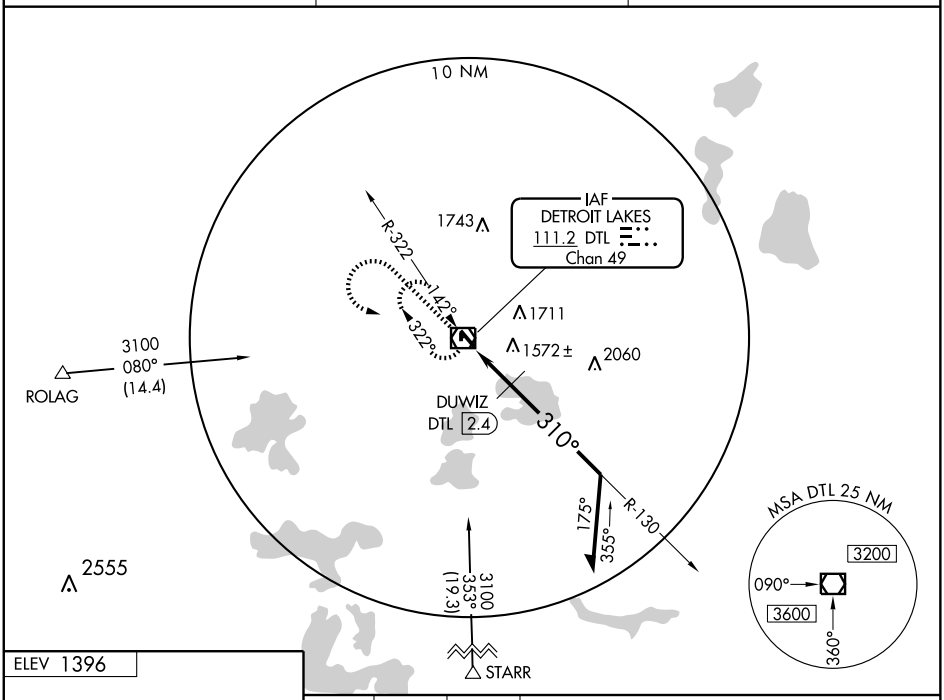
VOR RWY 31

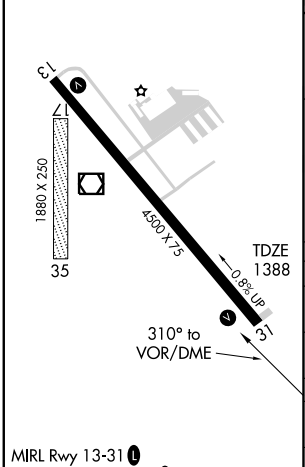
DETROIT LAKES-WETHING FIELD (DTL)

NA

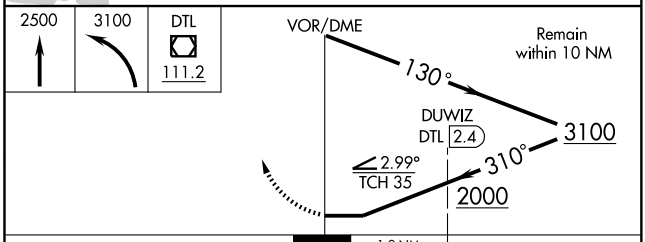
MISSED APPROACH: Climb to 2500 then climbing left turn to 3100 direct DTL VOR/DME and hold.

AWOS-3	PRINCETON RADIO	UNICOM
111.2	122.5	122.8 (CTAF) L





MIRL Rwy 13-31 L
REIL Rwys 13 and 31 L



CATEGORY	A	B	C	D
S-31	2000-1 612 (700-1)		2000-1¾ 612 (700-1¾)	2000-2 612 (700-2)
CIRCLING	2000-1 604 (700-1)		2000-1¾ 604 (700-1¾)	2080-2¼ 684 (700-2¼)
DUWIZ FIX MINIMUMS				
S-31	1880-1 492 (500-1)		1880-1¼ 492 (500-1¼)	1880-1½ 492 (500-1½)
CIRCLING	1880-1 484 (500-1)	1940-1 544 (600-1)	1940-1½ 544 (600-1½)	2080-2¼ 684 (700-2¼)

NC-1. 03 JUN 2010 to 01 JUL 2010

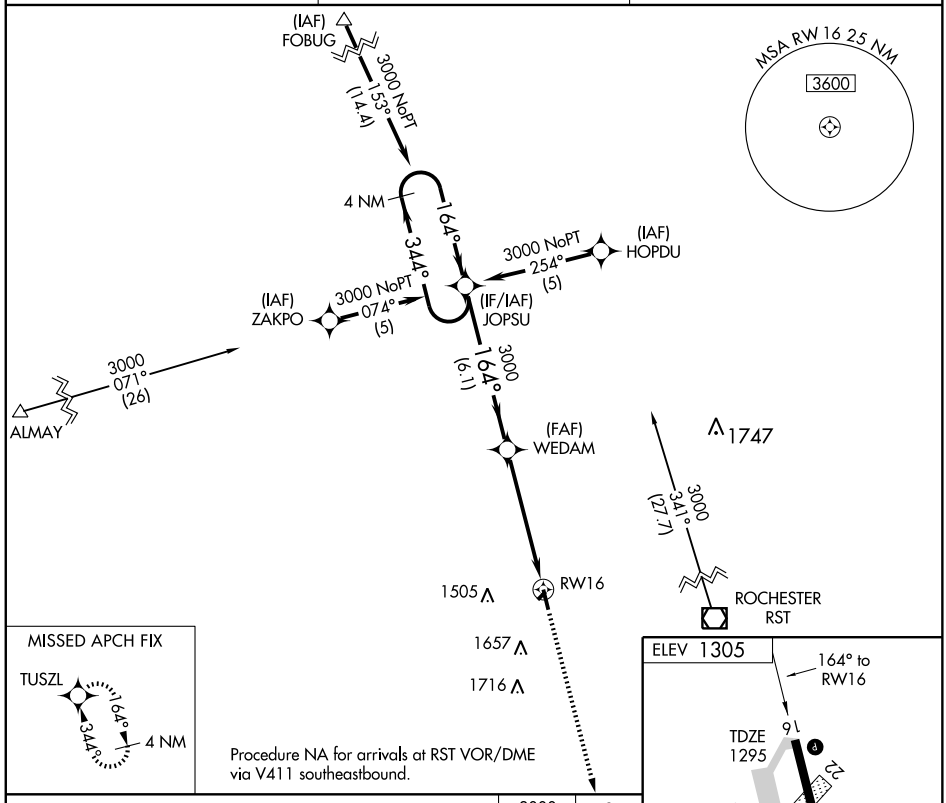
APP CRS		
164°	Rwy Idg	4500
	TDZE	1295
	Apt Elev	1305

RNAV (GPS) RWY 16
DODGE CENTER (TOB)

DME/DME RNP- 0.3 NA.
VDP NA with Rochester Intl altimeter setting.
When local altimeter setting not received, use Rochester Intl altimeter setting and increase all MDA 40 feet.

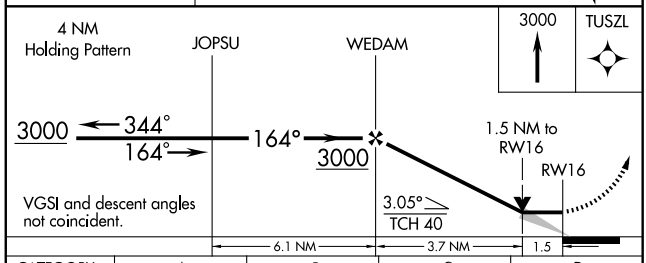
MISSED APPROACH: Climb to 3000 direct TUSZL and hold.

AWOS-3	ROCHESTER APP CON ★	CTAF
119.075	119.8 251.125	122.9 L

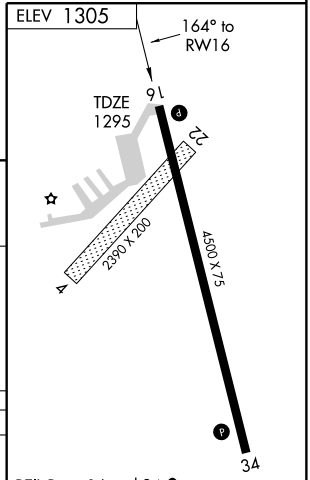


MISSED APCH FIX

Procedure NA for arrivals at RST VOR/DME via V411 southeastbound.



CATEGORY	A	B	C	D
LNAV MDA	1800-1 505 (500-1)		1800-1½ 505 (500-1½)	NA
CIRCLING	1960-1 655 (700-1)	1980-1 675 (700-1)	2000-2 695 (700-2)	NA



NC-1, 03 JUN 2010 to 01 JUL 2010

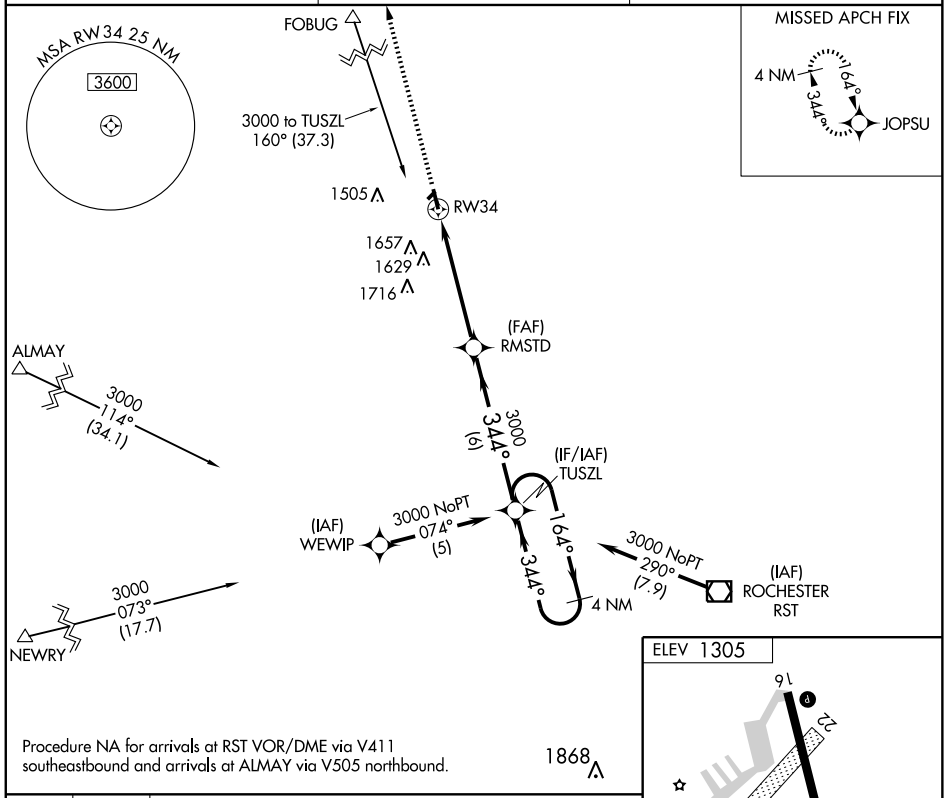
APP CRS		
344°	Rwy Idg	4500
	TDZE	1305
	Apt Elev	1305

RNAV (GPS) RWY 34
DODGE CENTER (TOB)

DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Rochester Intl altimeter setting and increase all MDA 40 feet, LNAV Cat C visibility ¼ mile.
VDP NA with Rochester Intl altimeter setting.

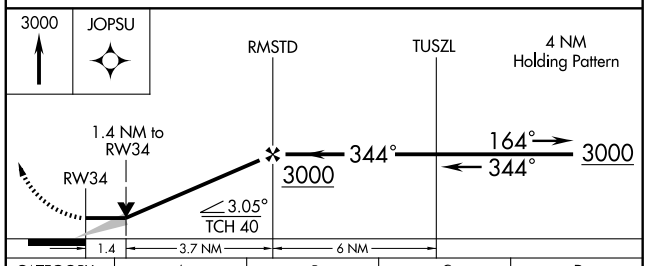
MISSED APPROACH: Climb to 3000 direct JOPSU and hold.

AWOS-3	ROCHESTER APP CON ★	CTAF
119.075	119.8 251.125	122.9 L

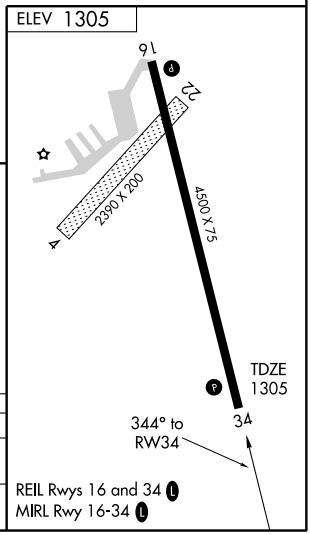


Procedure NA for arrivals at RST VOR/DME via V411 southeastbound and arrivals at ALMAY via V505 northbound.

1868



CATEGORY	A	B	C	D
LNAV MDA	1780-1 475 (500-1)		1780-1¼ 475 (500-1¼)	NA
CIRCLING	1960-1 655 (700-1)	1980-1 675 (700-1)	2000-2 695 (700-2)	NA



NC-1, 03 JUN 2010 to 01 JUL 2010

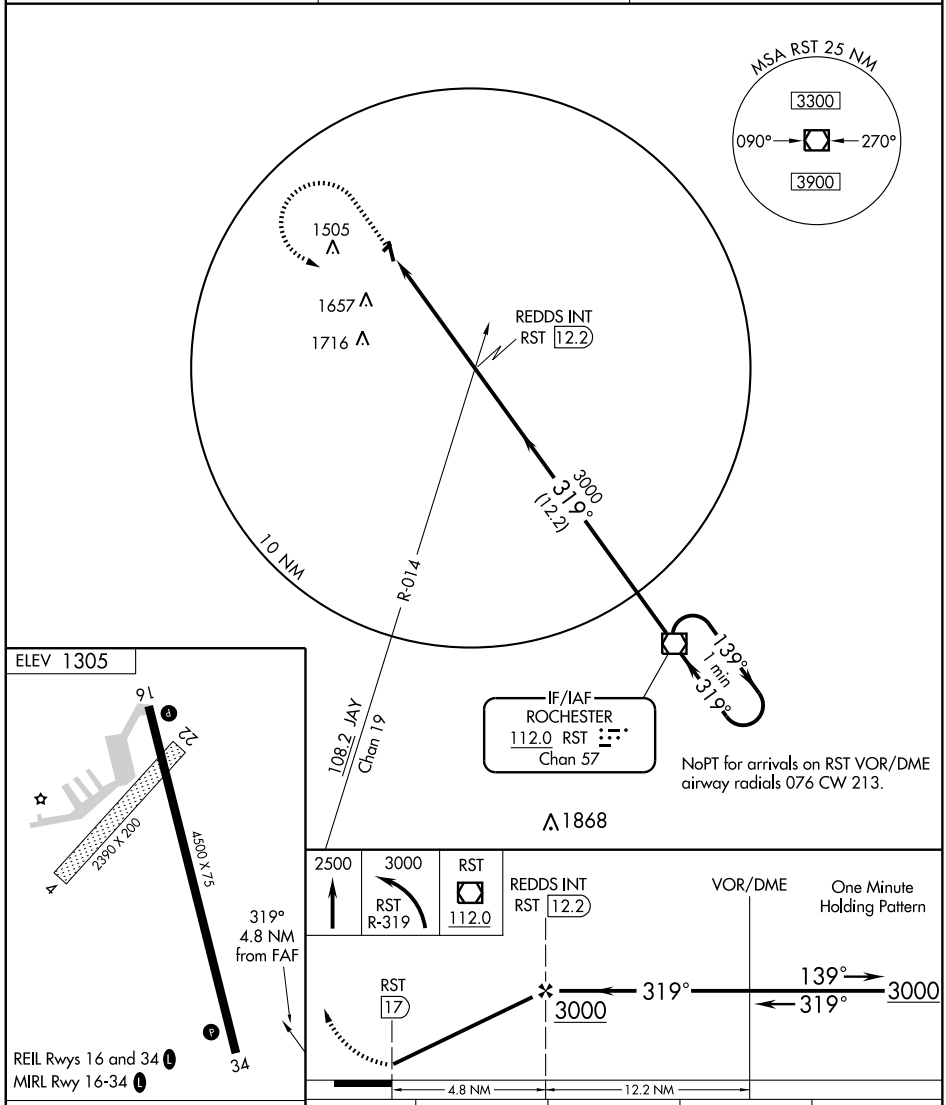
VOR/DME RST	APP CRS	Rwy Idg	N/A
112.0	319°	TDZE	N/A
Chan 57		Apt Elev	1305

VOR-A
DODGE CENTER (TOB)

When local altimeter setting not received, use Rochester Intl altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climb to 2500 then climbing left turn to 3000 via RST VOR/DME R-319 to RST VOR/DME and hold.

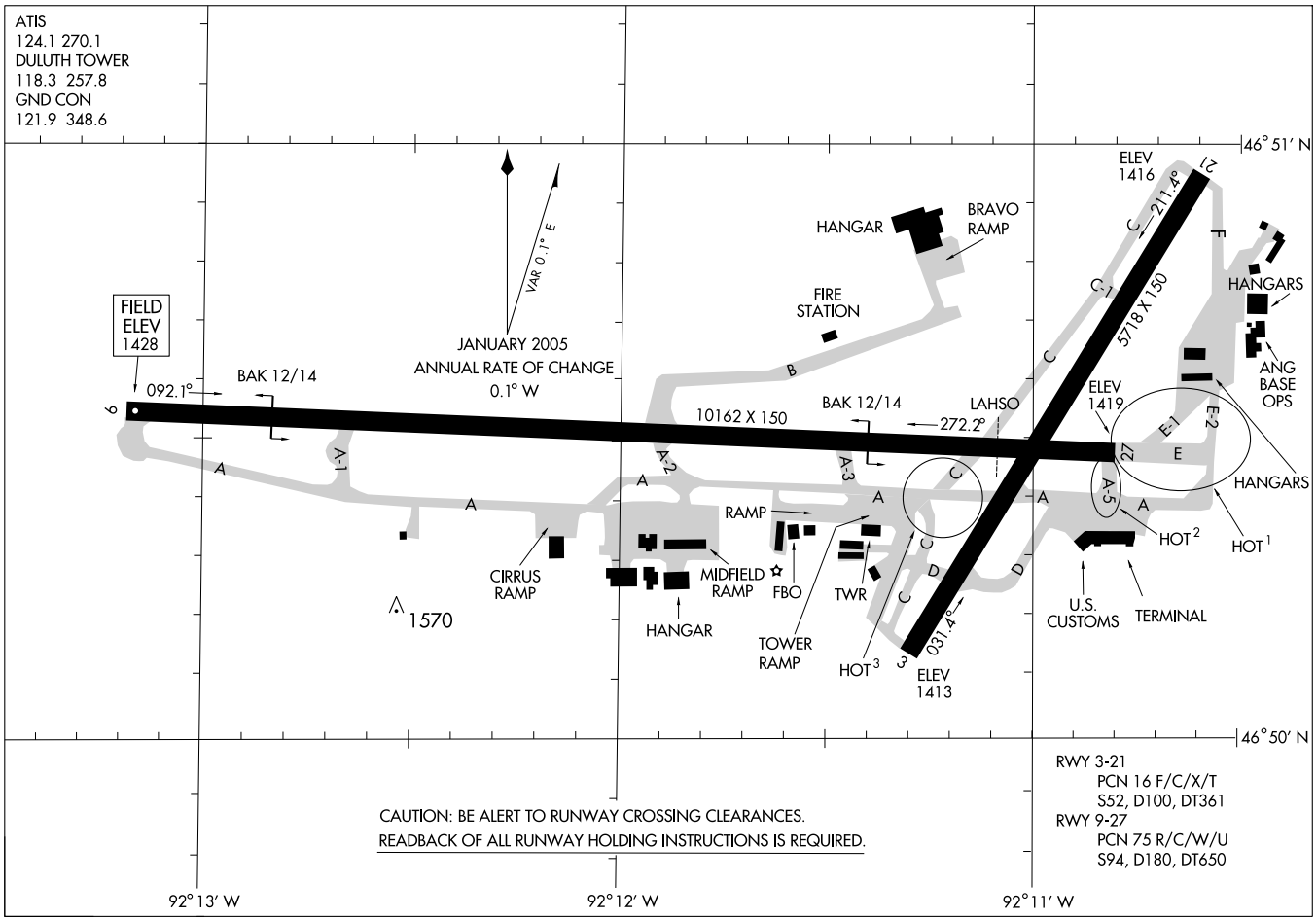
AWOS-3	ROCHESTER APP CON ★	CTAF
119.075	119.8 251.125	122.9 (L)



FAF to MAP 4.8 NM					
Knots	60	90	120	150	180
Min:Sec	4:48	3:12	2:24	1:55	1:36

CATEGORY	A	B	C	D
CIRCLING	1960-1 655 (700-1)	1980-1 675 (700-1)	2000-2 695 (700-2)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010


ATIS
124.1 270.1
DULUTH TOWER
118.3 257.8
GND CON
121.9 348.6
46° 51′ N
46° 50′ N
92° 13′ W
92° 12′ W
92° 11′ W
FIELD ELEV 1428
092.1°
BAK 12/14
VAR 0.1° E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W
10162 X 150
BAK 12/14
272.2°
LAHSO
ELEV 1416
211.4°
5718 X 150
ELEV 1419
ELEV 1413
031.4°
HANGAR
BRAVO RAMP
FIRE STATION
HANGARS
ANG BASE OPS
HANGARS
RAMP
CIRRUS RAMP
MIDFIELD
FBO
TWR
HANGAR
TOWER RAMP
HOT 3
HOT 2
HOT 1
U.S. CUSTOMS
TERMINAL
1570
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
RWY 3-21
PCN 16 F/C/X/T
S52, D100, DT361
RWY 9-27
PCN 75 R/C/W/U
S94, D180, DT650

COPTER ILS or LOC RWY 27

DULUTH INTL (DLH)

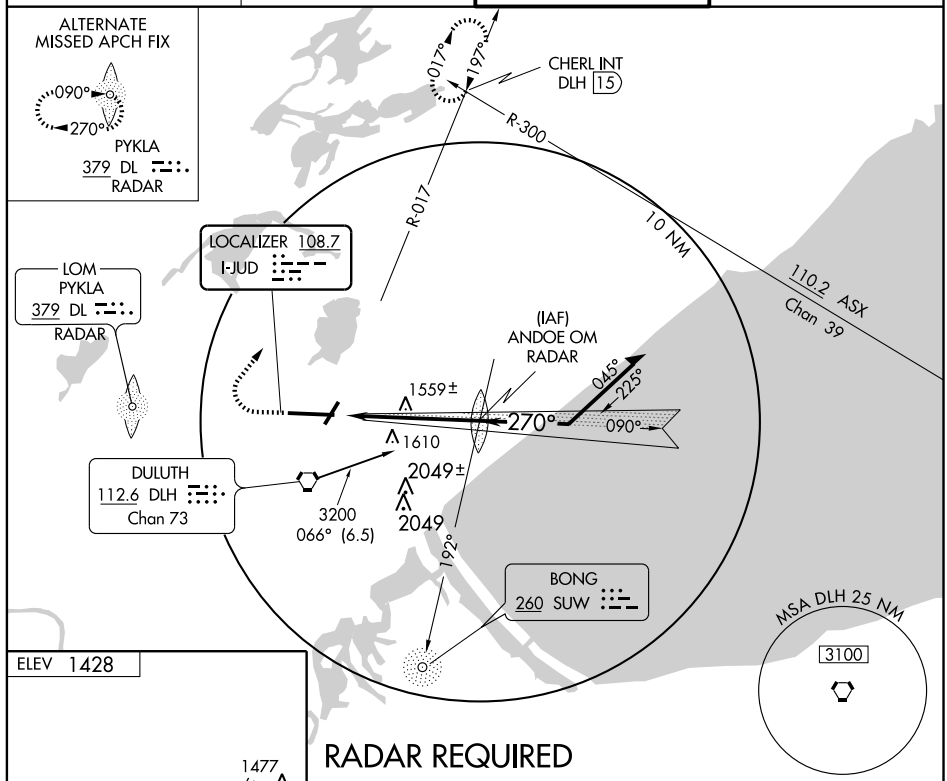
LOC I-JUD	APP CRS	Rwy Idg	10162
108.7	270°	TDZE	1421
		Apt Elev	1428

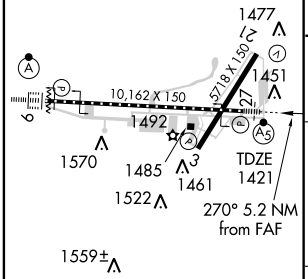
ASR — Inoperative table does not apply to H-ILS 27. For inoperative MALSR, increase H-LOC 27 visibility to RVR 2400.

MALSR

MISSED APPROACH: Climb to 3000 then climbing right turn to 4500 via heading 060° and DLH VORTAC R-017 to CHERL Int/DLH 15 DME and hold.

ATIS	DULUTH APP CON ★	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6

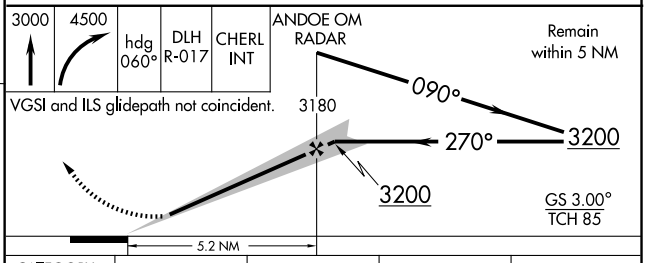




TDZ/CL Rwy 9 and 27
REIL Rwys 3 and 21
HIRL Rwys 3-21 and 9-27

FAF to MAP 5.2 NM					
Knots	45	60	75	90	105
Min:Sec	6:56	5:12	4:10	3:28	2:58

RADAR REQUIRED



CATEGORY	COPTER	B	C	D
H-ILS 27	1621/20 200 (200-½)	NA		
H-LOC 27	1820/12 399 (400-¼)	NA		
CIRCLING		NA		

NC-1, 03 JUN 2010 to 01 JUL 2010

COPTER ILS RWY 9

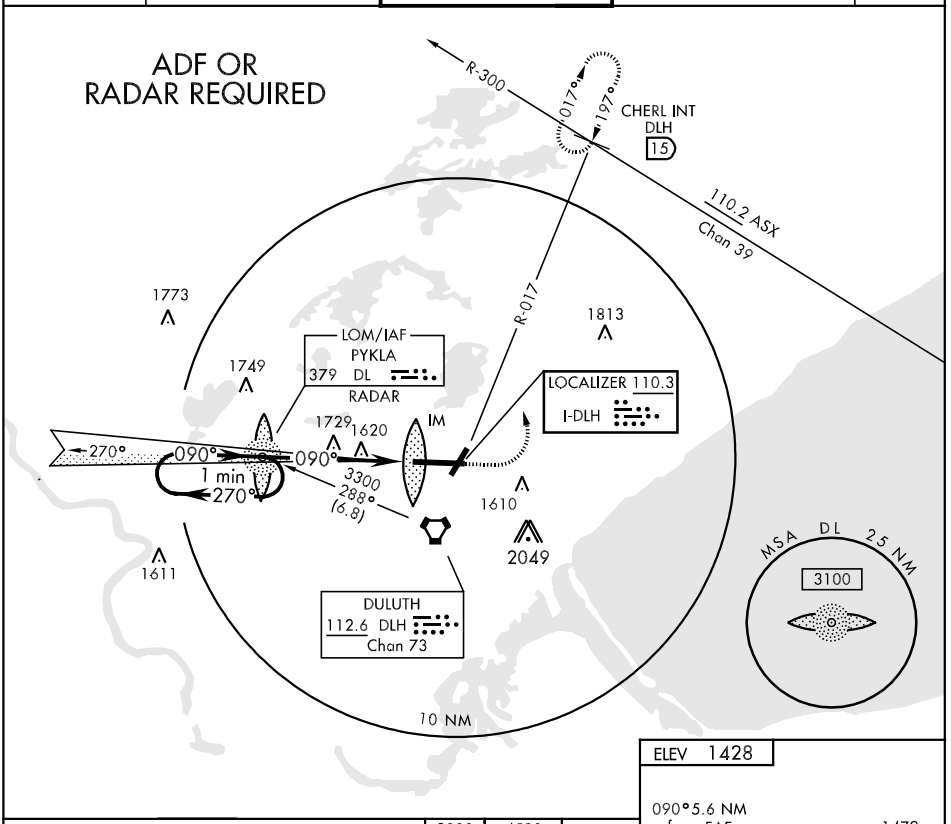
LOC I-DLH	APCH CRS	Rwy ldg 10,162 / TDZE 1428 / Arpt Elev 1428	AL-125 [USAF]	DULUTH INTL (KDLH)
110.3	090°			

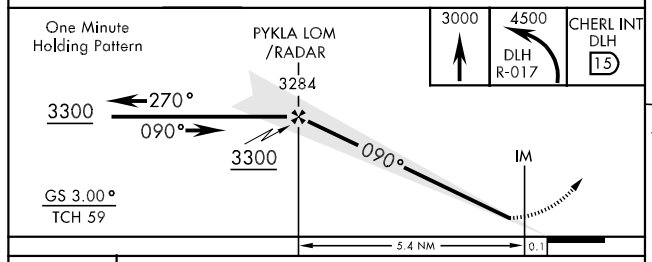
* When ALS inop, increase RVR to 24 and vis to ½ mile.

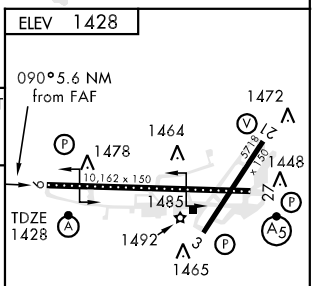
ALSF-2 (A)

MISSED APPROACH: Climb to 3000 then climbing left turn to 4500 via DLH R-017 to CHERL INT/DLH 15 DME and hold.

ATIS	DULUTH APP CON	DULUTH TOWER	GND CON	ASR
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6	







TDZL/CL Rwy 9
REIL Rwy 3 and 21
HIRL Rwy 3-21 and 9-27

CATEGORY	COPTER		
S-ILS 9 *	1628/12	200	(200-¼)
S-LOC 9 *	1880/12	452	(500-¼)

FAF to MAP 5.6 NM					
Knots	45	60	75	90	105
Min:Sec	7:28	5:36	4:29	3:44	3:12

NC-1, 03 JUN 2010 to 01 JUL 2010

HI-TACAN RWY 9

TACAN LKI Chan 11	APCH CRS 082°	Rwy ldg 10,162 TDZE 1428 Arpt Elev 1428

JAL-125 [USAF]

DULUTH INTL (KDLH)

* Category E not authorized SE of Rwy 3 and Rwy 27.

ALSF-2

MISSED APPROACH: Climb to 2500 then climbing right turn to 4000 via LKI R-099 to MILOD 15 DME and hold.

ATIS	DULUTH APP CON	DULUTH TOWER	GND CON	ASR
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6	

RADAR REQUIRED

2180

(b) 180 110 (a) 290 (c) (c)

LAKESIDE
Chan 11 LKI
N46°50.71′
W92°11.09′

1849

1810

1773

1749

1813

FLPPR LKI 15

CAUTION:
DO NOT SELECT CHANNEL 73 "DLH" FOR CHANNEL 11 "LKI". TOWERS 2049′ ON R-099 CHANNEL 73 "DLH".

R-262

082°

LR-254

1610

LKI 25

099°

279°

R-099

1611

LKI 7

2049

MILOD LKI 15

LKI 15 Arc

R-180

LKI 15

20 NM

MSA LKI 25 NM

3100

1638

360°

IAF
EMITT
LKI 25 DME
N46°25.81′
W92°14.24′

180°

360°

1637

LKI 40

ELEV 1428

EMERG SAFE ALT 100 NM 4100

EMITT R-180 25

R-180 15

FLPPR R-262 15

FL180

360°

082°

7

15 Arc

3300

2

TACAN

5.0 NM

2500

4000 LKI R-099

MILOD LKI 15

082° to TACAN

1472

1464

1478

1448

10,162 x 150

1485

TDZE 1428

1492

1465

CATEGORY	C	D	E
S-9	1880/40 452 (500-¾)	1880/50	452 (500-1)
CIRCLING *	1920-1½ 492 (500-1½)	1980-2	552 (600-2)
S-ASR 9	1880/40 452 (500-¾)	1880/50	452 (500-1)

TDZL/CL Rwy 9
REIL Rwy 3 and 21
HIRL Rwy 3-21 and 9-27

HI-TACAN RWY 27

TACAN LKI Chan 11	APCH CRS 279°	Rwy ldg 10,162 TDZE 1421 Arpt Elev 1428

JAL-125 [USAF]

DULUTH INTL (KDLH)

* Category E not authorized SE of Rwy 3 and Rwy 27.

MALSR (A5)

MISSED APPROACH: Climb to 4000 via LKI R-262 to FLPPR 15 DME and hold.

ATIS	DULUTH APP CON	DULUTH TOWER	GND CON	ASR
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6	

RADAR REQUIRED

LAKESIDE
Chan 11 LKI
N46°50.71′
W92°11.09′

1849 1810 1773 1749 1610 1611 2049 2180

FLPPR LKI 15

LKI 6

MILOD LKI 15

LKI 25

R-262 082° 262°

279° R-099 LR-107

R-180

LKI 15 Arc

LKI 15

20 NM

MSA LKI 25 NM
3100

1638

IAF
EMITT
LKI 25 DME
N46°25.81′
W92°14.24′

360° 180°

1637

LKI 40

CAUTION:
DO NOT SELECT CHANNEL 73 "DLH" FOR CHANNEL 11 "LKI". TOWERS 2049′ ON R-099 CHANNEL 73 "DLH".

(a) (b) (c) 110 180 290

EMERG SAFE ALT 100 NM 4100

4000 LKI R-262

FLPPR LKI 15

MILOD R-099 15

R-180 15

EMITT R-180 25

FL180

360°

279°

TACAN

6 1 15 Arc

3200

5.0 NM

ELEV 1428

279° to TACAN

1472 1464 1478 1448 1485 1492 1465

10,162 x 150

TDZE 1421

CATEGORY	C	D	E
S-27	1860/40 439 (500-¾)	1860/50	439 (500-1)
CIRCLING *	1920-1½ 492 (500-1½)	1980-2	552 (600-2)
S-ASR 27	1860/40 439 (500-¾)	1860/50	439 (500-1)

TDZL/CL Rwy 9
REIL Rwy 3 and 21
HIRL Rwy 3-21 and 9-27

LOC I-DLH	APP CRS	Rwy Idg	10162
110.3	090°	TDZE	1428
		Apt Elev	1428

ILS or LOC RWY 9

DULUTH INTL (DLH)

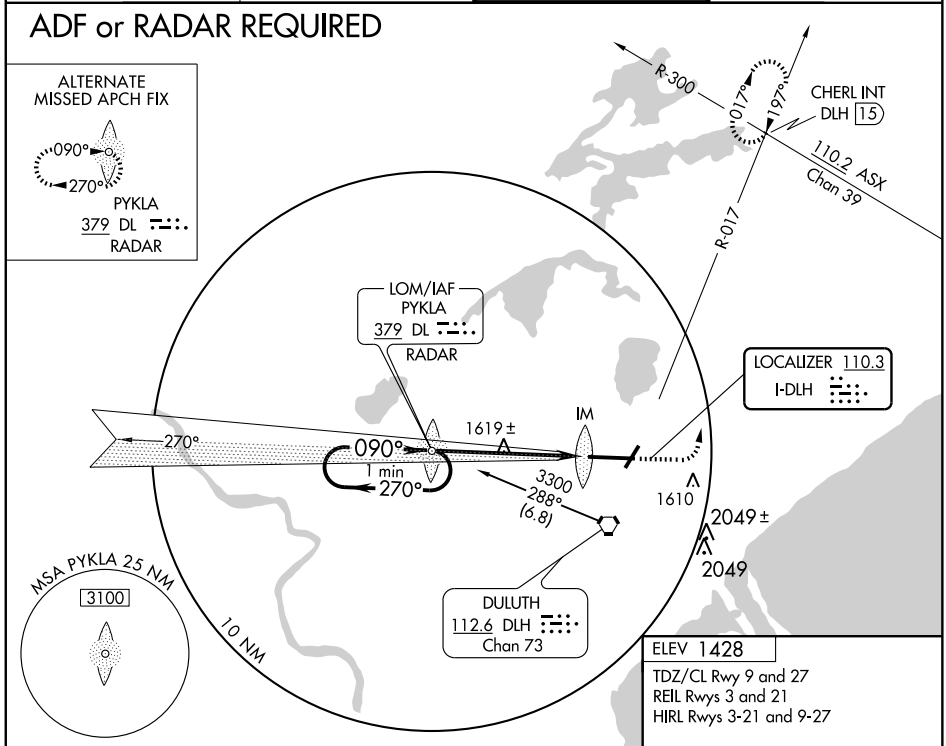
ASR — Cat E Circling NA southeast of Rwys 3 and 27.
ADF or RADAR required.
For inoperative ALSF, increase S-ILS 9 Cat E visibility to RVR 4000 and S-LOC 9 Cat E to 1½ miles.

ALSF-2

MISSED APPROACH: Climb to 3000 then climbing left turn to 4500 via heading 320° and DLH VORTAC R-017 to CHERL INT/DLH 15 DME and hold.

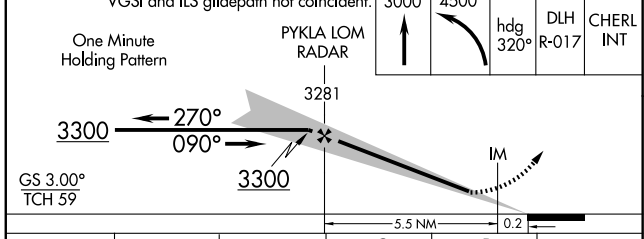
ATIS	DULUTH APP CON ★	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6

ADF or RADAR REQUIRED



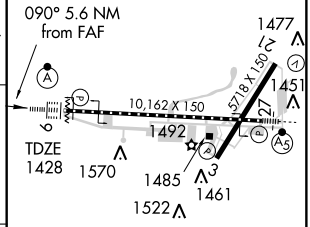
VGSI and ILS glidepath not coincident.

3000	4500	hdg 320°	DLH R-017	CHERL INT



ELEV 1428

TDZ/CL Rwy 9 and 27
REIL Rwys 3 and 21
HIRL Rwys 3-21 and 9-27



CATEGORY	A	B	C	D	E
S-ILS 9	1628/18 200 (200-½)				1628/24 200 (200-½)
S-LOC 9	1880/24 452 (500-½)		1880/40 452 (500-¾)	1880/50 452 (500-1)	
CIRCLING	1920-1 492 (500-1)		1920-1½ 492 (500-1½)	1980-2 552 (600-2)	2060-2½ 632 (700-2½)

FAF to MAP 5.6 NM

Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52

NC-1. 03 JUN 2010 to 01 JUL 2010

ILS or LOC RWY 27

DULUTH INTL (DLH)

LOC I-JUD	APP CRS	Rwy Idg	10162
108.7	270°	TDZE	1421
		Apt Elev	1428

ASR — Inoperative table does not apply to S-ILS 27. For inoperative MALSR, increase S-LOC 27 Cat E visibility to 1½ mile. Cat E Circling NA SE of Rwys 3 and 27. Autopilot coupled approach NA below 2550.

MALSR

MISSED APPROACH: Climb to 3000 then climbing right turn to 4500 via heading 060° and DLH VORTAC R-017 to CHERL INT/DLH 15 DME and hold.

ATIS	DULUTH APP CON★	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6

ALTERNATE MISSED APCH FIX
090°
270°
PYKLA
379 DL
RADAR

DME or RADAR REQUIRED

(IAF) FOSUP DLH 15
CHERL INT DLH 15
017°
197°
15 NM
R-009
R-017
LOCALIZER 108.7 I-JUD
DLH 15 Arc
3200 NoPT
R-300
(IAF) ANDOE OM RADAR
LOM PYKLA 379 DL RADAR
3200 to ANDOE 066° (6.5)
1559±
1610
3200 –LR-070
270° (8.8)
045°
225°
090°
110.2 ASX Chan 39
LR-086
(IF) WIRSA DLH 15
2049±
2049
192°
DULUTH 112.6 DLH Chan 73
R-182
BONG 260 SUW
(IAF) DAYAR DLH 15
MSA DLH 25 NM
3100

ELEV 1428
1477
1451
1492
1570
1485
1461
1522
1559±
10,162 X 150
5,718 X 150
9
27
3
21
TDZE 1421
270° 5.2 NM from FAF

TDZ/CL Rwy 9 and 27
REIL Rwys 3 and 21
HIRL Rwys 3-21 and 9-27

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

3000	4500	hdg 060°	DLH R-017	CHERL INT

VGSI and ILS glidepath not coincident.

ANDOE OM RADAR
Remain within 15 NM
090°
3180
270°
3200
3200
GS 3.00°
TCH 85
5.2 NM

CATEGORY	A	B	C	D	E
S-ILS 27	1621/40	200 (200-¾)		1651/40	230 (300-¾)
S-LOC 27	1820/24	399 (400-½)		1820/40 399 (400-¾)	1820/50 399 (400-1)
CIRCLING	1920-1	492 (500-1)		1980-2 552 (600-2)	2060-2¼ 632 (700-2¼)

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-DLH	APP CRS	Rwy Idg	10162
110.3	090°	TDZE	1428
		Apt Elev	1428

ILS RWY 9 (CAT II)

DULUTH INTL (DLH)

ASR — ADF or RADAR required.

ALSF-2

MISSED APPROACH: Climb to 3000 then climbing left turn to 4500 via heading 320° and DLH VORTAC R-017 to CHERL INT/DLH 15 DME and hold.

ATIS	DULUTH APP CON ★	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6

ADF or RADAR REQUIRED

ALTERNATE MISSED APCH FIX

090°

270°

PYKLA

379 DL

RADAR

R-300

017°

197°

CHERL INT

DLH 15

110.2 ASX

Chan 39

R-017

LOM/IAF

PYKLA

379 DL

RADAR

LOCALIZER 110.3

I-DLH

270°

090°

1 min

270°

1619 ±

IM

3300

288°

(6.8)

1610

2049 ±

2049

MSA PYKLA 25 NM

3100

10 NM

DULUTH

112.6 DLH

Chan 73

ELEV 1428

VGSI and ILS glidepath not coincident.

One Minute Holding Pattern

PYKLA LOM RADAR

3000	4500	hdg 320°	DLH R-017	CHERL INT

3281

DH

RA 101

IM

3300

270°

090°

3300

1428

MSL

GS 3.00°

TCH 59

5.5 NM

790'

1155'

CATEGORY	A	B	C	D
S-ILS 9	RA 101/12 100 DA 1528			

1477

1451

10,162 X 150

5718 X 150

9

27

1492

TDZE

1428 1570

1485

1461

1522

1559±

TDZ/CL Rwy 9 and 27

REIL Rwys 3 and 21

HIRL Rwys 3-21 and 9-27

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 82314 W03A	APP CRS 030°	Rwy Idg 5718 TDZE 1420 Apt Elev 1428

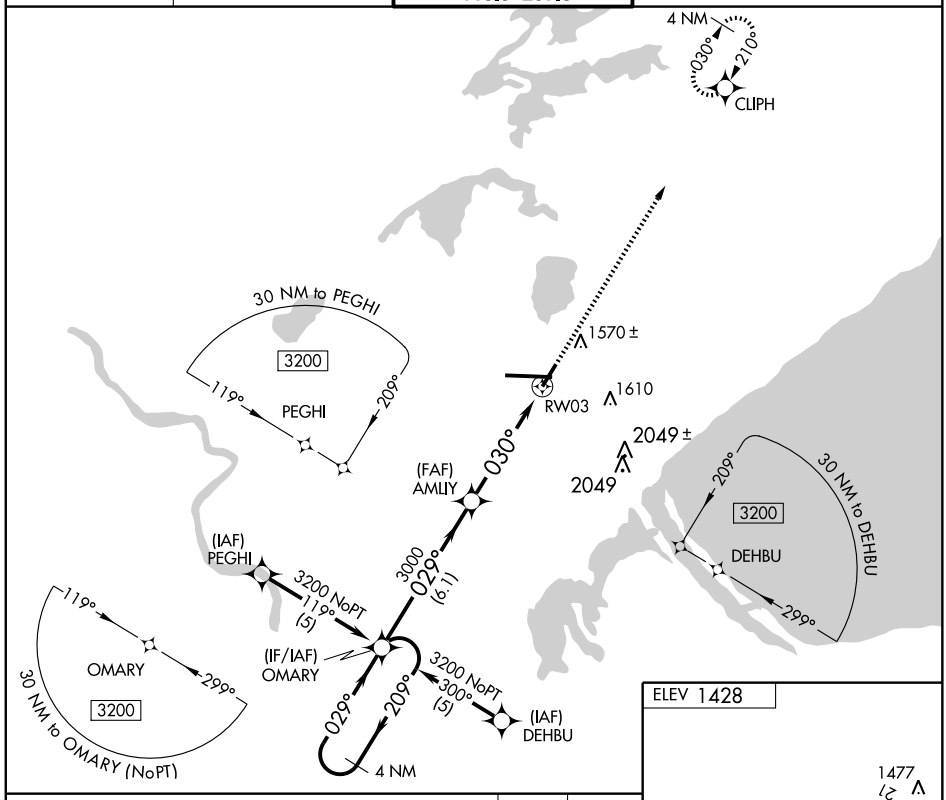
RNAV (GPS) RWY 3

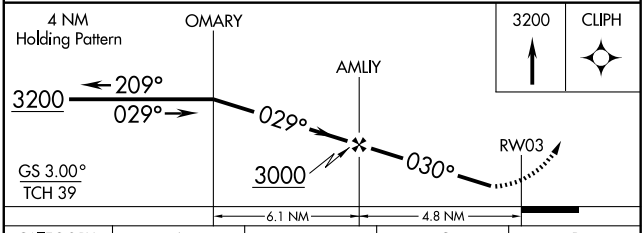
DULUTH INTL (DLH)

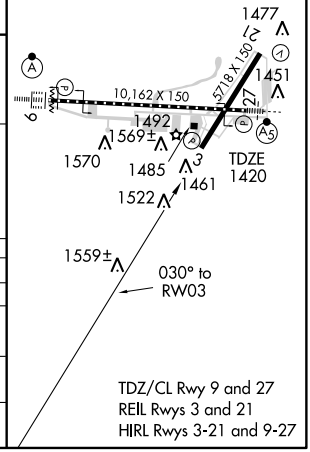
ASR For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3200 direct CLIPH and hold.

ATIS	DULUTH APP CON ★	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6







CATEGORY	A	B	C	D
LPV DA	1824-1½ 404 (400-1½)			
LNAV/VNAV DA	1874-1¾ 454 (500-1¾)			
LNAV MDA	1820-1 400 (400-1)			1820-1¼ 400 (400-1¼)
CIRCLING	1920-1 492 (500-1)		1920-1½ 492 (500-1½)	1920-2 552 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	10162
CH 90502	090°	TDZE	1428
W09A		Apt Elev	1428

RNAV (GPS) RWY 9

DULUTH INTL (DLH)

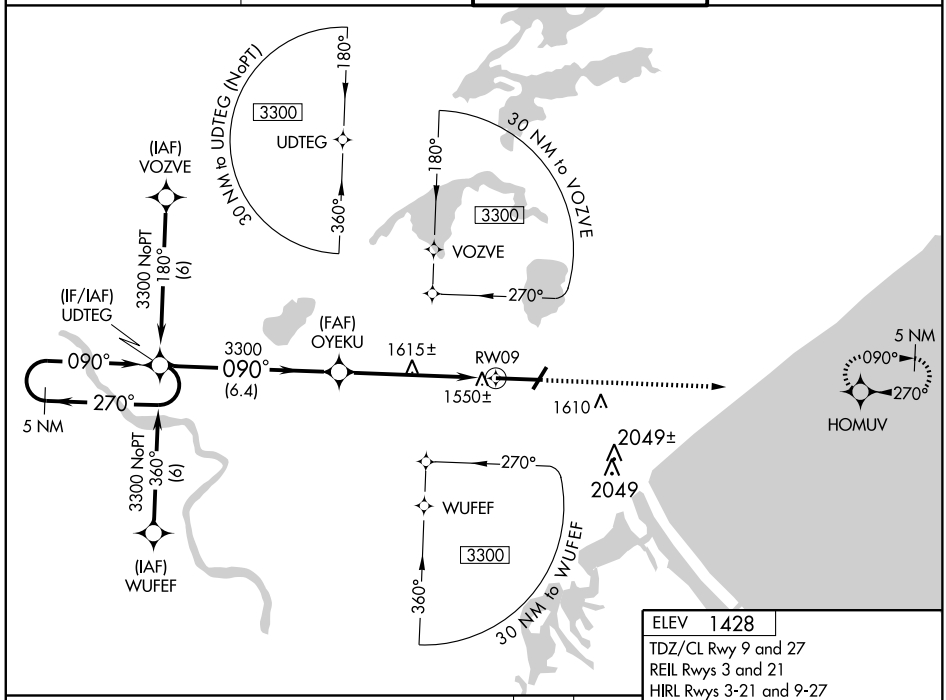
T ASR

DME/DME RNP-0.3 NA. Circling NA for Cat. E SE of Rwys 3 and 27.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (115°F).
For inoperative ALSF-2, increase LPV Cat. E visibility to ¾, LNAV/VNAV all Cats visibility to 1½ and LNAV Cat. E visibility to 1½.

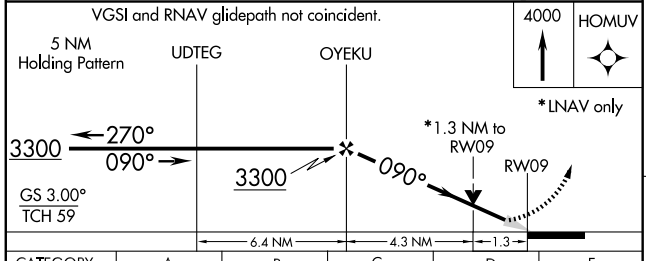
ALSF-2

MISSED APPROACH: Climb to 4000 direct HOMUV and hold.

ATIS	DULUTH APP CON *	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6

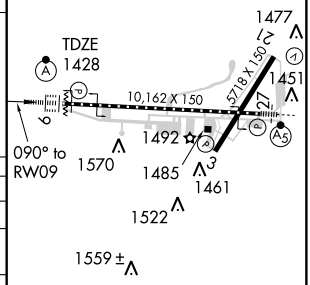


VGSI and RNAV glidepath not coincident.



CATEGORY	A	B	C	D	E
LPV DA	1628/24 200 (200-½)				
LNAV/VNAV DA	1860/50 432 (500-1)				
LNAV MDA	1880/24 452 (500-½)		1880/40 452 (500-¾)	1880/50 452 (500-1)	
CIRCLING	1920-1½ 492 (500-1½)			1980-2 552 (600-2)	

ELEV 1428
TDZ/CL Rwy 9 and 27
REIL Rwys 3 and 21
HIRL Rwys 3-21 and 9-27



NC-1. 03 JUN 2010 to 01 JUL 2010

RNAV (GPS) RWY 21

DULUTH INTL (DLH)

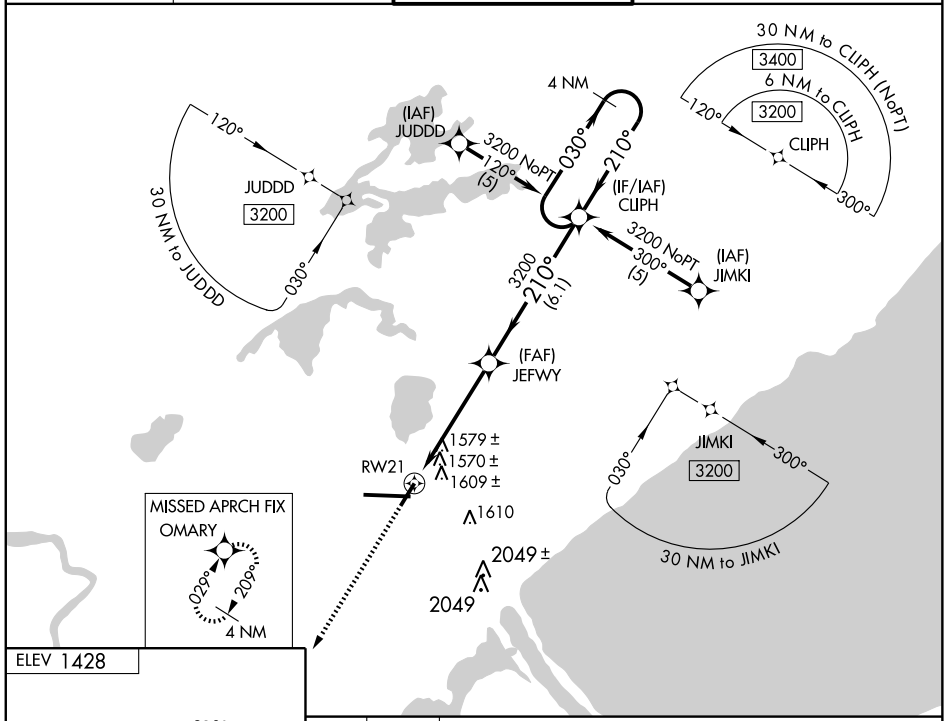
WAAS	APP CRS	Rwy Idg	5718
CH 40114	210°	TDZE	1420
W21A		Apt Elev	1428

ASR

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3200 direct OMARY and hold.

ATIS	DULUTH APP CON ★	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6



CATEGORY	A	B	C	D
LPV DA	1708-1 288 (300-1)			
LNAV/VNAV DA	1927-1¾ 507 (500-1¾)			
LNAV MDA	1840-1 420 (500-1)		1840-1¼ 420 (500-1¼)	
CIRCLING	1920-1 492 (500-1)		1920-1½ 492 (500-1½)	1980-2 552 (600-2)

TDZ/CL Rwy 9 and 27
REIL Rwys 3 and 21
HIRL Rwys 3-21 and 9-27

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 50502 W27A	APP CRS 270°	Rwy Idg 10162 TDZE 1421 Apt Elev 1428

RNAV (GPS) RWY 27

DULUTH INTL (DLH)

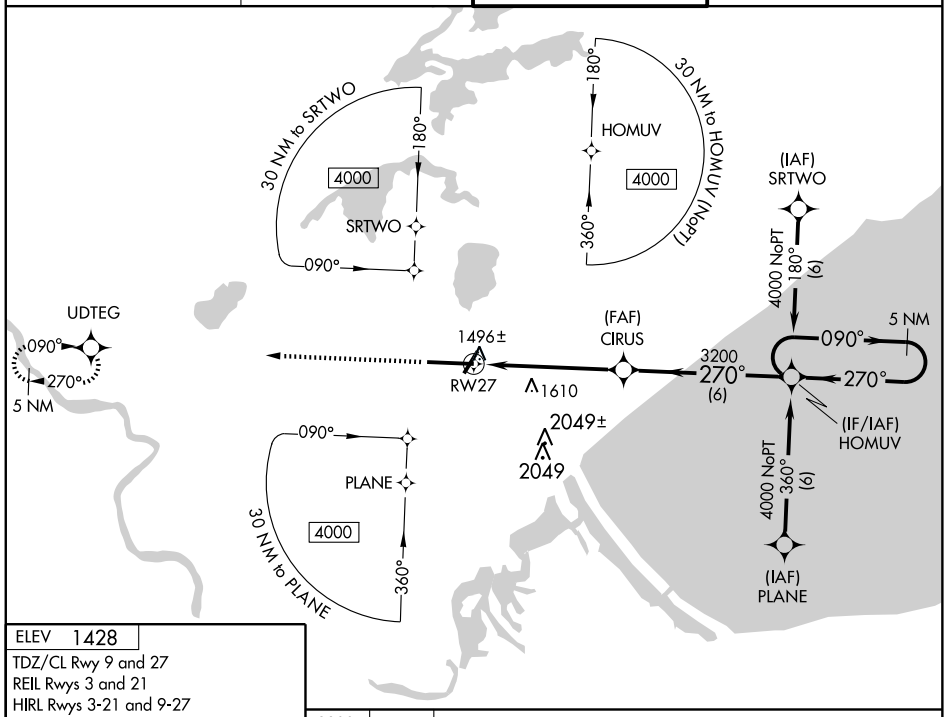
ASR

DME/DME RNP- 0.3 NA. Circling NA for Cat. E SE of Rwys 3 and 27.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (115°F).
For inoperative MALSR, increase LPV Cat. E visibility to RVR 4000, LNAV/VNAV Cat. E visibility to RVR 6000, and LNAV Cat. E visibility to 1¾.

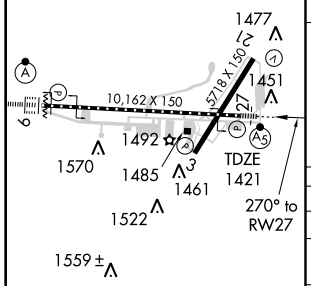
MALSR

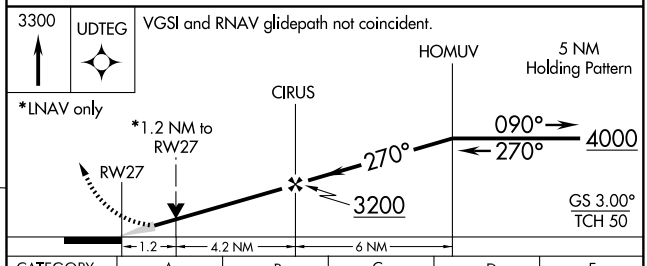
MISSED APPROACH: Climb to 3300 direct UDTEG and hold.

ATIS	DULUTH APP CON ★	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6



ELEV 1428
TDZ/CL Rwy 9 and 27
REIL Rwys 3 and 21
HIRL Rwys 3-21 and 9-27





CATEGORY	A	B	C	D	E
LPV DA	1671/24 250 (300-½)				
LNAV/VNAV DA	1746/40 325 (400-¾)				
LNAV MDA	1900/24 479 (500-½)		1900/40 479 (500-¾)	1900/50 479 (500-1)	1900/60 479 (500-1¼)
CIRCLING	1920-1¼ 492 (500-1¼)		1920-1½ 492 (500-1½)	1980-2 552 (600-2)	

NC-1, 03 JUN 2010 to 01 JUL 2010

TACAN RWY 9

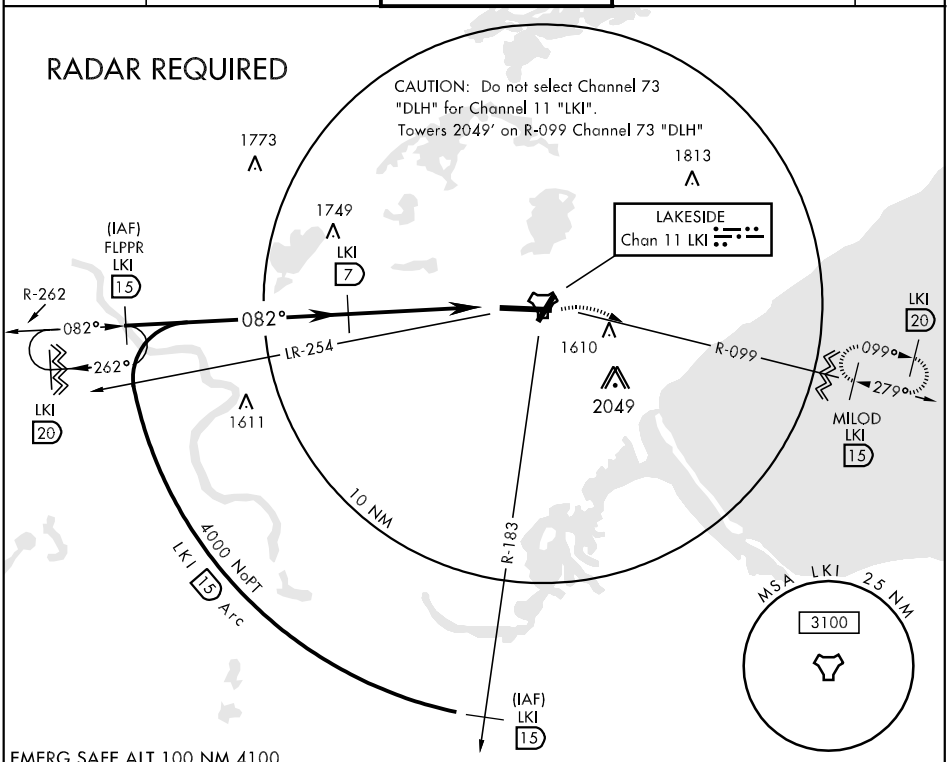
TACAN LKI Chan 11	APCH CRS 082°	Rwy ldg 10,162 TDZE 1428 Arpt Elev 1428	AL-125 [USAF]	DULUTH INTL (KDLH)

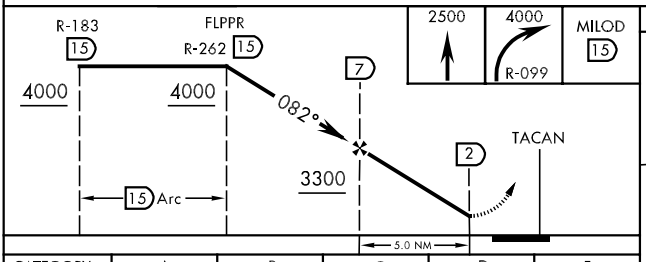
* Category E not authorized SE Rwy 3 and Rwy 27.

ALSF-2

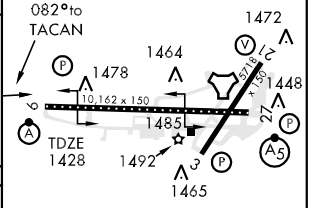
MISSED APPROACH: Climb to 2500 then climbing right turn to 4000 via LKI R-099 to MILOD 15 DME and hold.

ATIS	DULUTH APP CON	DULUTH TOWER	GND CON	ASR
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6	





ELEV 1428



CATEGORY	A	B	C	D	E
S-9	1880/24 452 (500-½)		1880/40 452 (500-¾)	1880/50 452 (500-1)	
CIRCLING *	1920-1 492 (500-1)		1920-1½ 492 (500-1½)	1980-2 552 (600-2)	
S-ASR 9	1880/24 452 (500-½)		1880/40 452 (500-¾)	1880/50 452 (500-1)	

TDZL/CL Rwy 9
REIL Rwy 3 and 21
HIRL Rwy 3-21 and 9-27

NC-1, 03 JUN 2010 to 01 JUL 2010

TACAN RWY 27

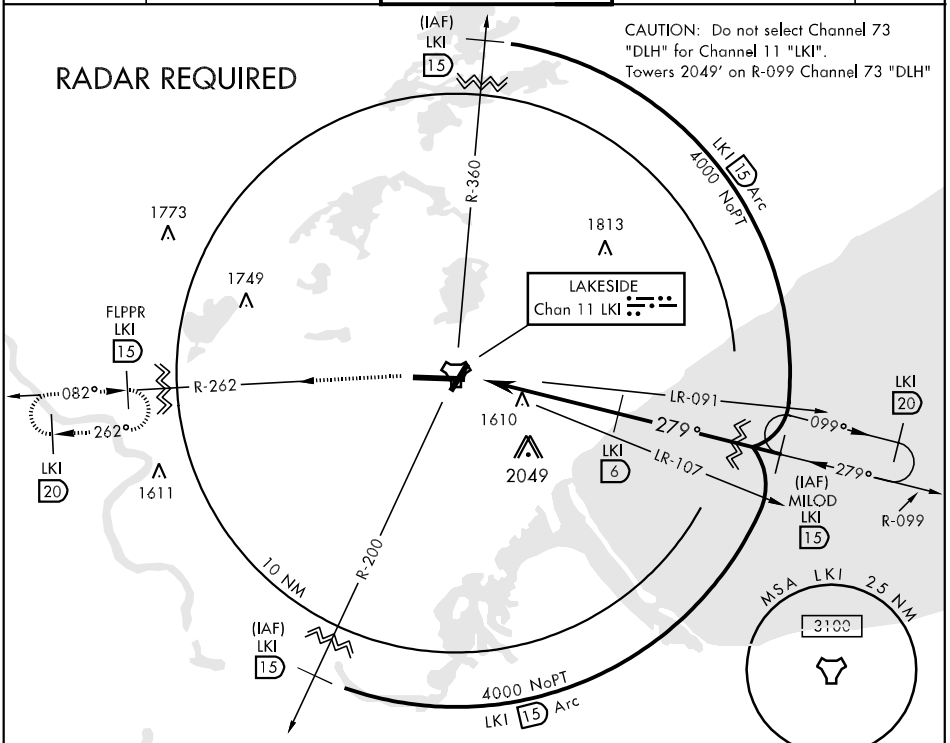
TACAN LKI Chan 11	APCH CRS 279°	Rwy ldg 10,162 TDZE 1421 Arpt Elev 1428	AL-125 [USAF]	DULUTH INTL (KDLH)

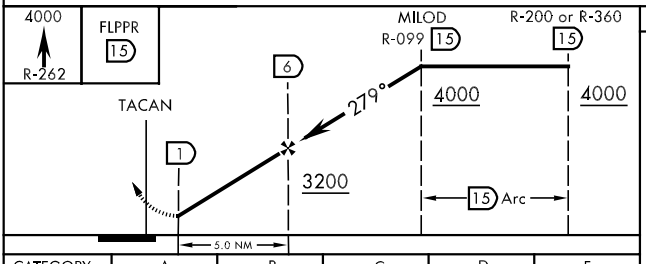
* Category E not authorized SE Rwy 3 and Rwy 27.

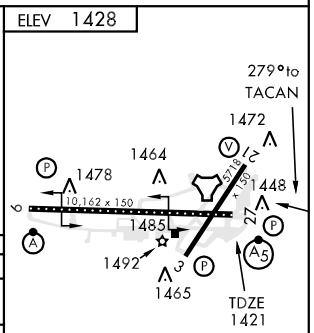
MALSR

MISSED APPROACH: Climb to 4000 via R-262 to FLPPR 15 DME and hold.

ATIS	DULUTH APP CON	DULUTH TOWER	GND CON	ASR
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6	







CATEGORY	A	B	C	D	E
S-27	1860/24 439 (500-½)		1860/40 439 (500-¾)	1860/50 439 (500-1)	
CIRCLING *	1920-1 492 (500-1)		1920-1½ 492 (500-1½)	1980-2 552 (600-2)	
S-ASR 27	1860/24 439 (500-½)		1860/40 439 (500-¾)	1860/50 439 (500-1)	

TDZL/CL Rwy 9
REIL Rwy 3 and 21
HIRL Rwy 3-21 and 9-27

NC-1, 03 JUN 2010 to 01 JUL 2010

VORTAC DLH 112.6 Chan 73	APP CRS 197°	Rwy Idg 5718 TDZE 1420 Apt Elev 1428

VOR/DME or TACAN RWY 21

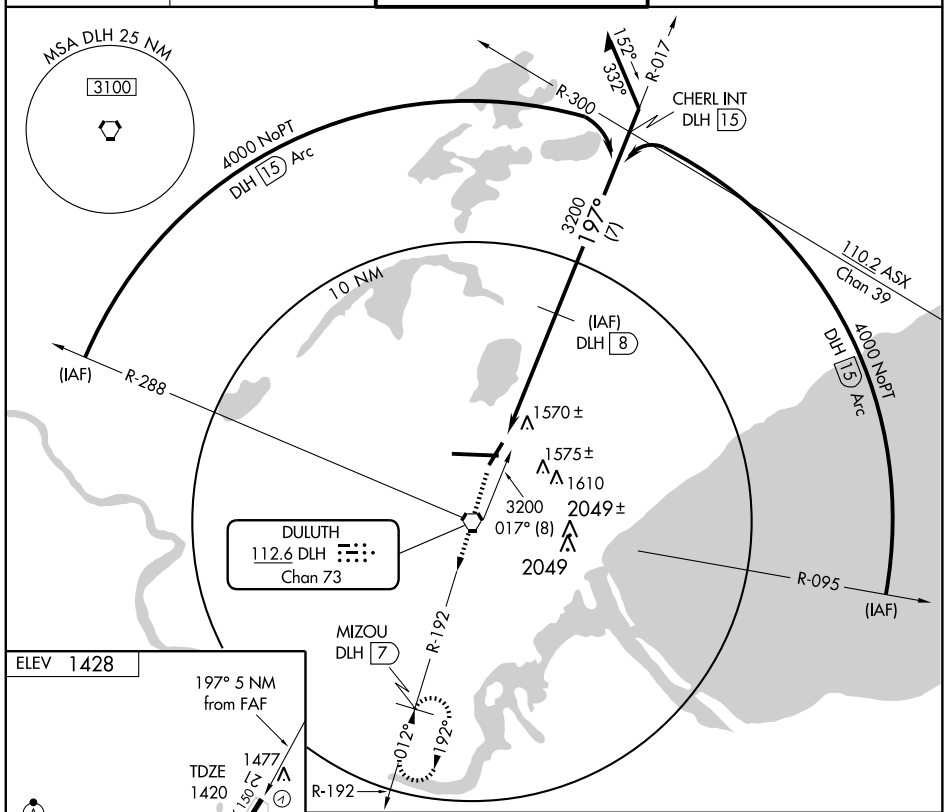
DULUTH INTL (DLH)

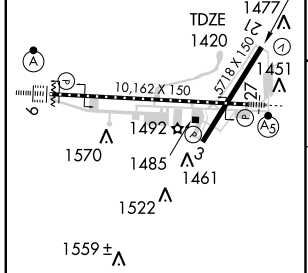
ASR

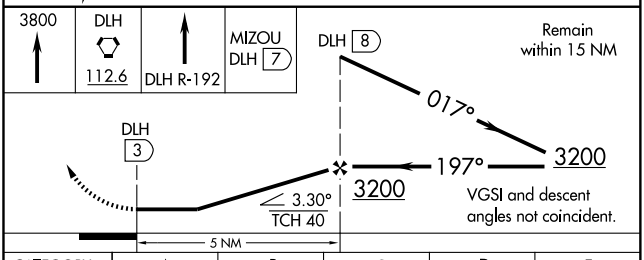
Cat E Circling not authorized southeast of Rwys 3 and 27.

MISSED APPROACH: Climb to 3800 via direct DLH VORTAC, then DLH R-192 to MIZOU 7 DME and hold.

ATIS	DULUTH APP CON *	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6







CATEGORY	A	B	C	D	E
S-21	1860-1	440 (500-1)	1860-1¼ 440 (500-1¼)	1860-1½	440 (500-1½)
CIRCLING	1920-1	492 (500-1)	1920-1½ 492 (500-1½)	1980-2	552 (600-2)

TDZ/CL Rwy 9 and 27
REIL Rwys 3 and 21
HIRL Rwys 3-21 and 9-27

NC-1, 03 JUN 2010 to 01 JUL 2010

VORTAC DLH	APP CRS	Rwy Idg	5718
112.6	012°	TDZE	1420
Chan 73		Apt Elev	1428

VOR or TACAN RWY 3

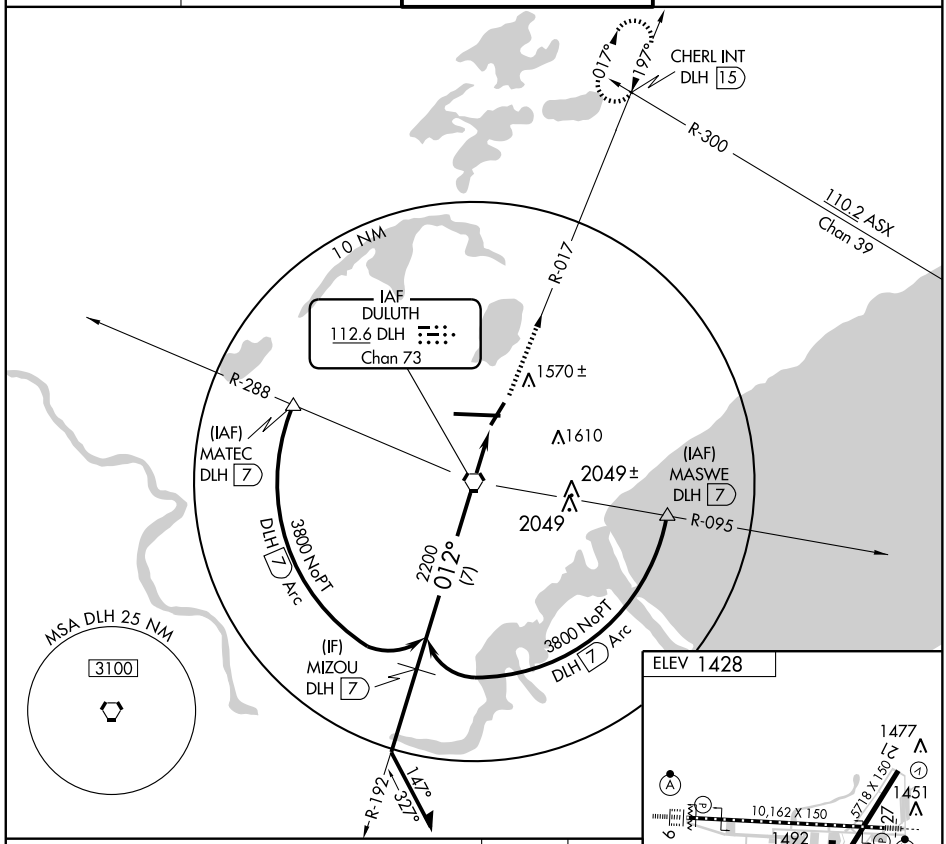
DULUTH INTL (DLH)

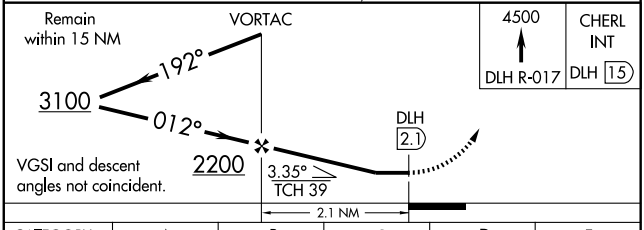
ASR

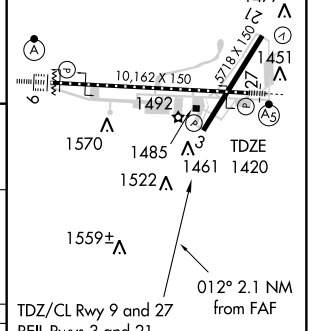
Circling NA for Cat E southeast of Rwy 3 and 27. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 4500 via DLH R-017 to CHERL INT/DLH 15 DME and hold.

ATIS	DULUTH APP CON ★	DULUTH TOWER	GND CON
124.1 270.1	125.45 255.9	118.3 257.8	121.9 348.6







TDZ/CL Rwy 9 and 27
REIL Rwys 3 and 21
HIRL Rwys 3-21 and 9-27

CATEGORY	A	B	C	D	E
S-3	1820-1 400 (400-1)			1820-1½ 400 (400-1½)	
CIRCLING	1920-1 492 (500-1)		1920-1½ 492 (500-1½)	1980-2 552 (600-2)	2060-2¼ 632 (700-2¼)

FAF to MAP 2.1 NM

Knots	60	90	120	150	180
Min:Sec	2:06	1:24	1:03	0:50	0:42

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	2392
317°	TDZE	610
	Apt Elev	610

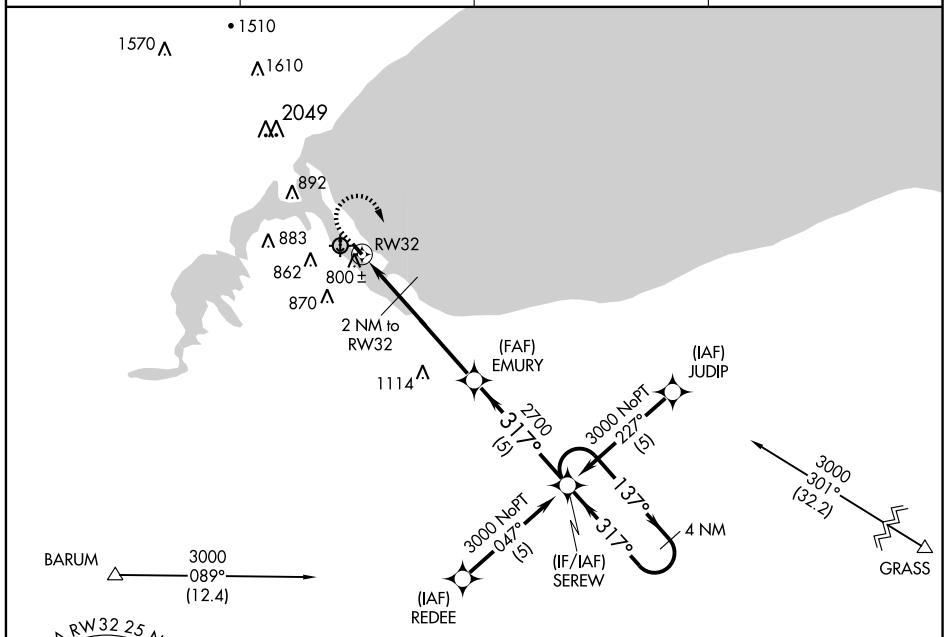
RNAV (GPS) RWY 32

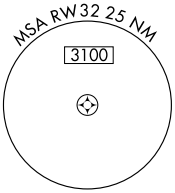
DULUTH/SKY HARBOR (DYT)

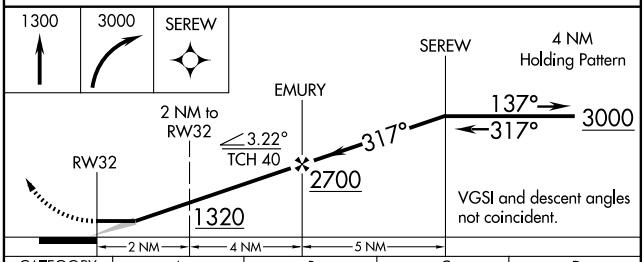
GPS or RNP-0.3 required.
DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 1300 then climbing right turn to 3000 direct SEREW WP and hold.

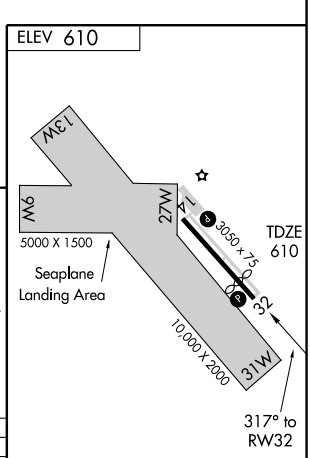
AWOS-3	DULUTH APP CON ★	CLNC DEL	UNICOM
119.275	125.45 255.9	124.8	122.7 (CTAF) L







CATEGORY	A	B	C	D
LNAV	1060-1	450 (500-1)	1060-1¼ 450 (500-1¼)	NA
CIRCLING	1100-1	490 (500-1)	1180-1½ 570 (600-1½)	NA



REIL Rwys 14 and 32 L
MIRL Rwy 14-32 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	5600
120°	TDZE	1451
	Apt Elev	1455

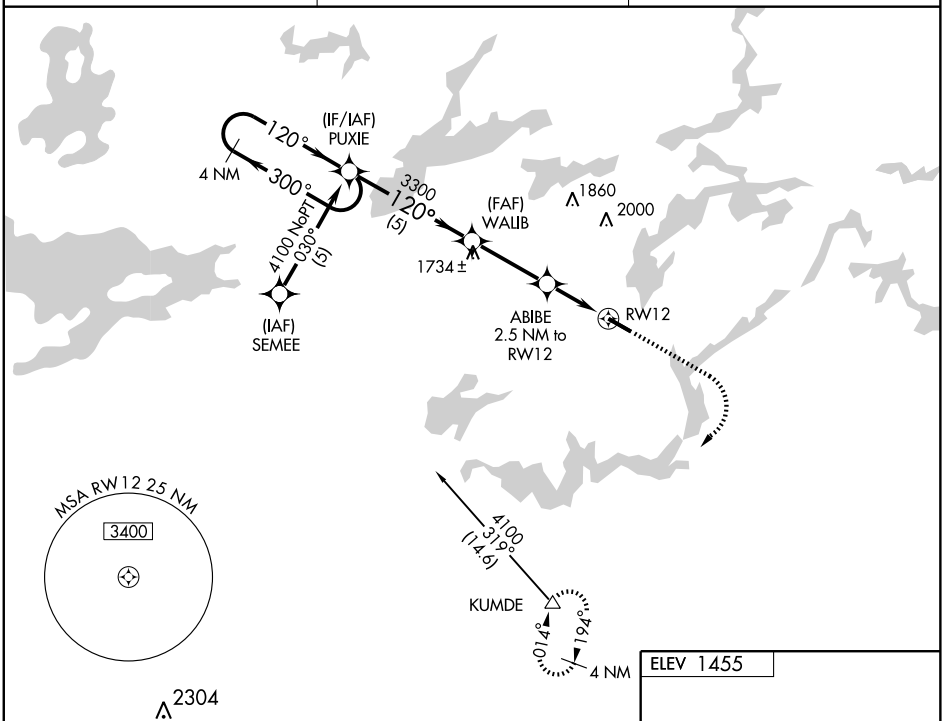
RNAV (GPS) RWY 12

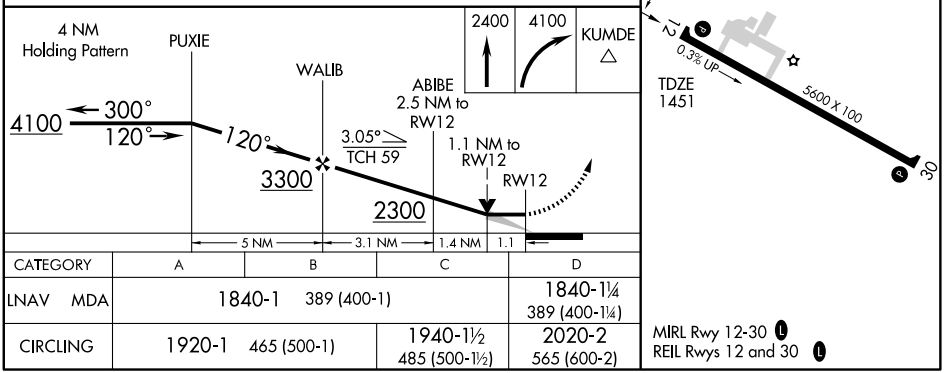
ELY MUNI (ELO)

T
NA GPS or RNP -0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 2400 then climbing right turn to 4100 direct KUMDE WP and hold.

AWOS-3	PRINCETON RADIO	UNICOM
132.025	122.1R	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1840-1 389 (400-1)			1840-1¼ 389 (400-1¼)
CIRCLING	1920-1 465 (500-1)		1940-1½ 485 (500-1½)	2020-2 565 (600-2)

MIRL Rwy 12-30 L
REIL Rwys 12 and 30 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	5600
300°	TDZE	1455
	Apt Elev	1455

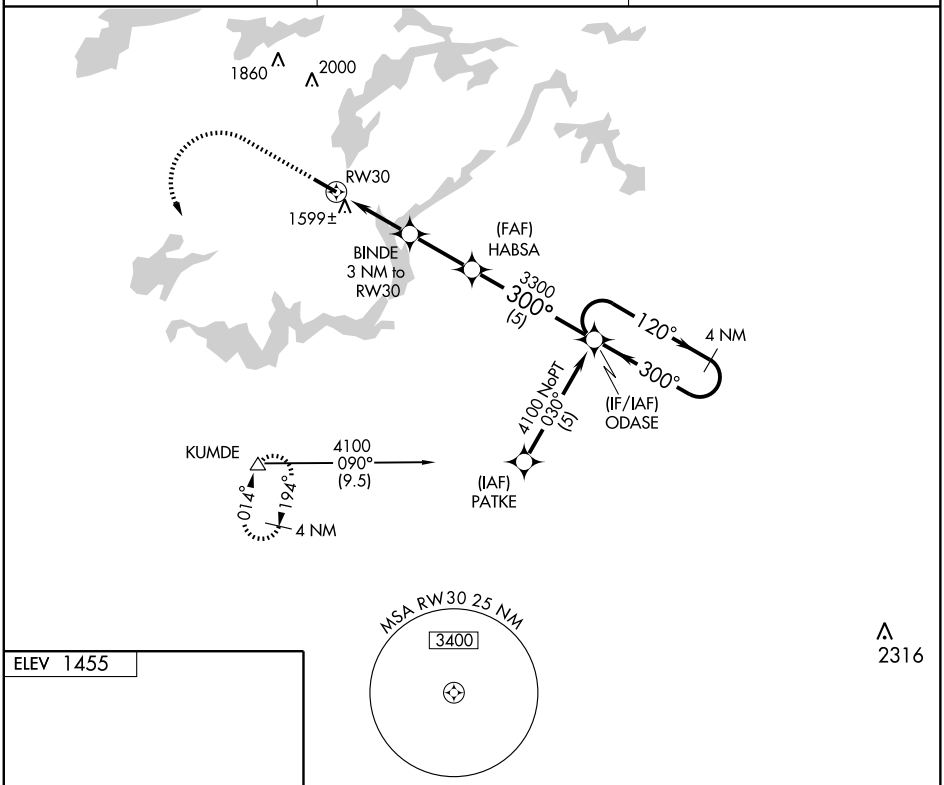
RNAV (GPS) RWY 30

ELY MUNI (ELO)

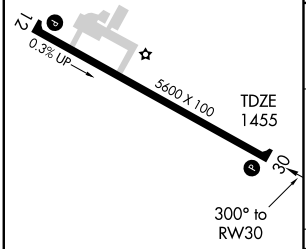
NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

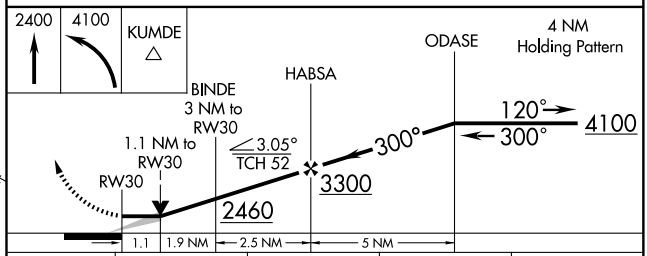
MISSED APPROACH: Climb to 2400 then climbing left turn to 4100 direct KUMDE WP and hold.

AWOS-3	PRINCETON RADIO	UNICOM
132.025	122.1R	122.8 (CTAF) L



ELEV 1455





CATEGORY	A	B	C	D
LNAV MDA	1860-1 405 (500-1)		1860-1¼ 405 (500-1¼)	
CIRCLING	1920-1 465 (500-1)		1940-1½ 485 (500-1½)	2020-2 565 (600-2)

MIRL Rwy 12-30 L
REIL Rwys 12 and 30 L

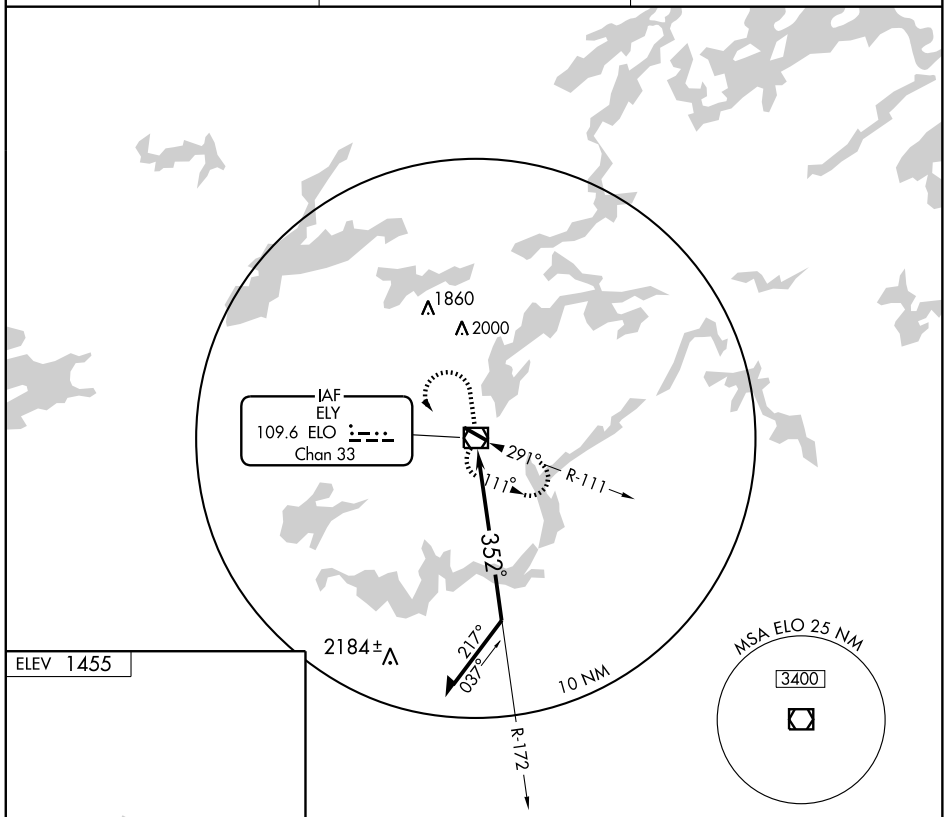
NC-1. 03 JUN 2010 to 01 JUL 2010

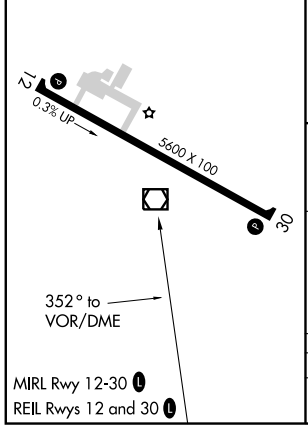
VOR/DME ELO	APP CRS	Rwy Idg	N/A
109.6	352°	TDZE	N/A
Chan 33		Apt Elev	1455

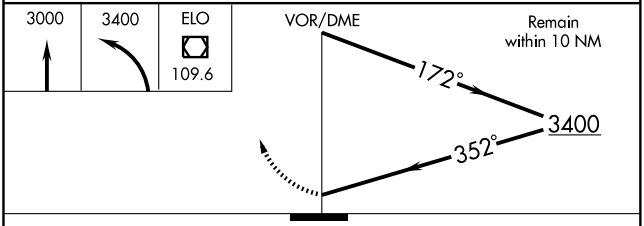
VOR-A
ELY MUNI (ELO)

MISSED APPROACH: Climb to 3000 then climbing left turn to 3400 direct ELO VOR/DME and hold.

AWOS-3	PRINCETON RADIO	UNICOM
132.025	122.1R	122.8 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	2120-1	665 (700-1)	2120-1¾ 665 (700-1¾)	2120-2 665 (700-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

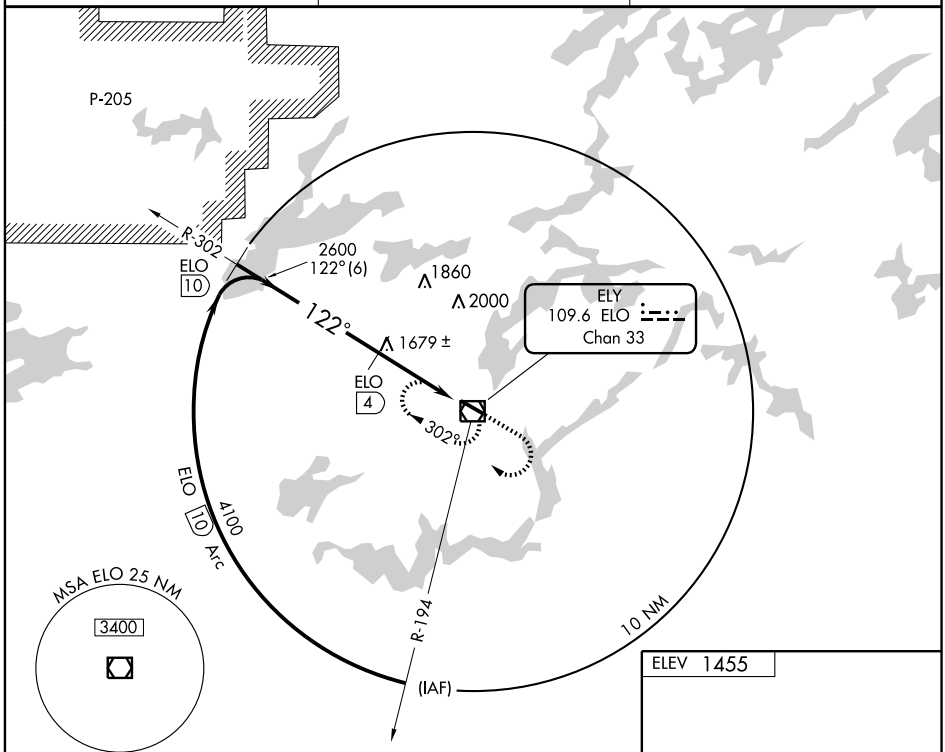
VOR/DME ELO 109.6 Chan 33	APP CRS 122°	Rwy Idg 5600 TDZE 1451 Apt Elev 1455

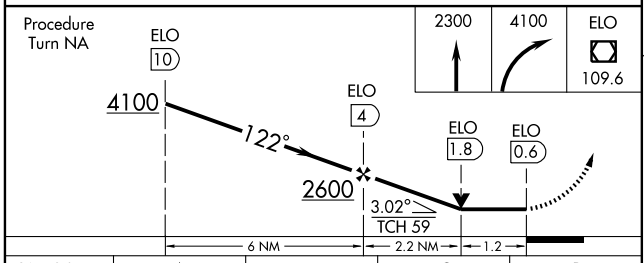
VOR/DME RWY 12

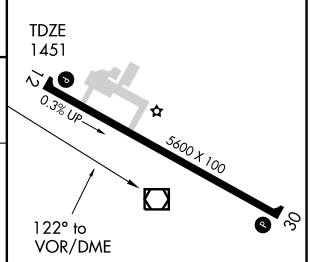
ELY MUNI (ELO)

MISSED APPROACH: Climb to 2300 then climbing right turn to 4100 direct ELO VOR/DME and hold.

AWOS-3	PRINCETON RADIO	UNICOM
132.025	122.1R	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-12	1900-1	449 (500-1)	1900-1¼ 449 (500-1¼)	1900-1½ 449 (500-1½)
CIRCLING	1920-1	465 (500-1)	1940-1½ 485 (500-1½)	2020-2 565 (600-2)

MIRL Rwy 12-30 L

REIL Rwys 12 and 30 L

NC-1. 03 JUN 2010 to 01 JUL 2010

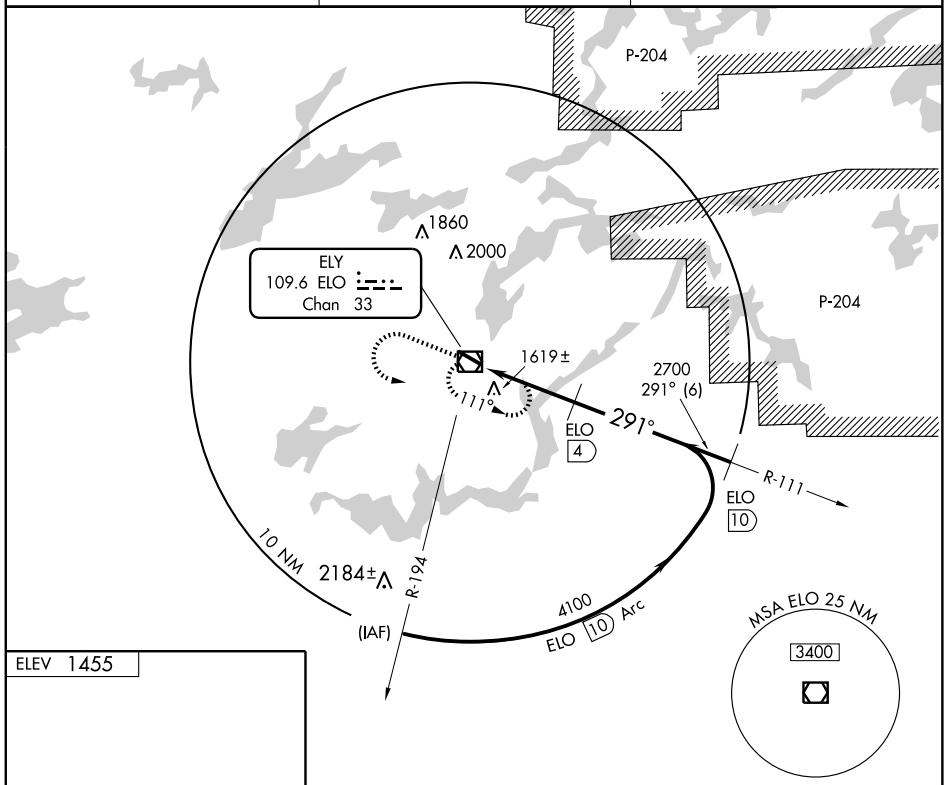
VOR/DME ELO	APP CRS	Rwy Idg	5600
109.6	291°	TDZE	1455
Chan 33		Apt Elev	1455

VOR/DME RWY 30

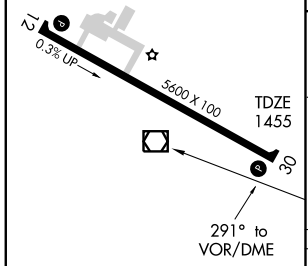
ELY MUNI (ELO)

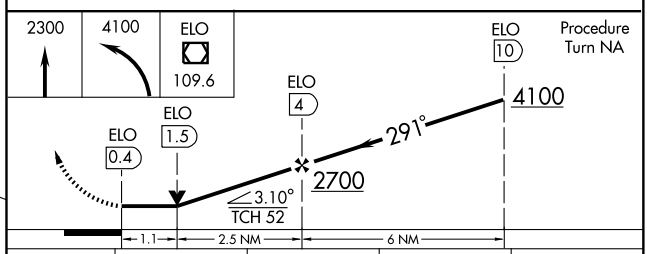
MISSED APPROACH: Climb to 2300 then climbing left turn to 4100 direct ELO VOR/DME and hold.

AWOS-3	PRINCETON RADIO	UNICOM
132.025	122.1R	122.8 (CTAF) L



ELEV 1455





CATEGORY	A	B	C	D
S-30	1880-1	425 (500-1)	1880-1¼	425 (500-1¼)
CIRCLING	1920-1	465 (500-1)	1940-1½ 485 (500-1½)	2020-2 565 (600-2)

MIRL Rwy 12-30 L

REIL Rwys 12 and 30 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4215
273°	TDZE	1369
	Apt Elev	1378

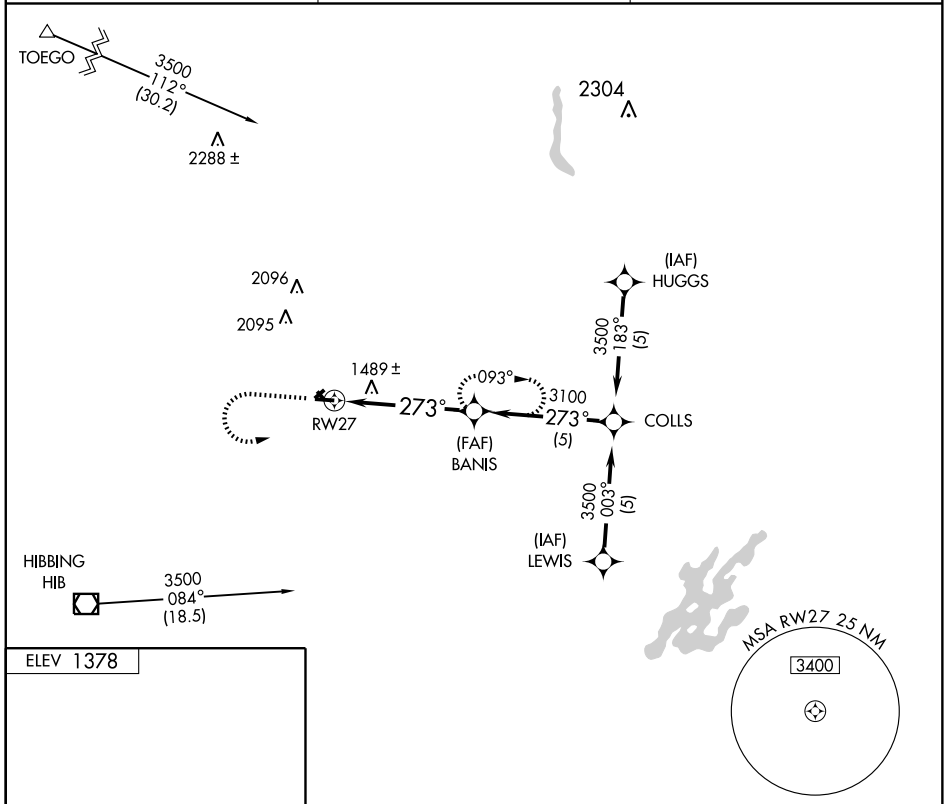
GPS RWY 27

EVELETH-VIRGINIA MUNI (EVM)

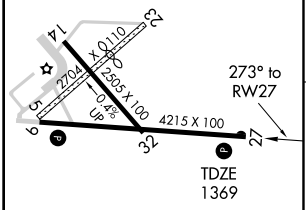
NA

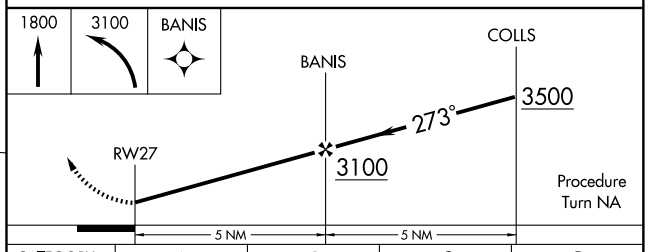
MISSED APPROACH: Climb to 1800 then left climbing turn to 3100 direct BANIS WP and hold.

AWOS-3	DULUTH APP CON ★	UNICOM
108.2	125.45 255.9	122.7 (CTAF)



ELEV 1378





CATEGORY	A	B	C	D
S-27	1740-1 371 (400-1)			1740-1¼ 371 (400-1¼)
CIRCLING	1920-1 542 (600-1)		1940-1½ 562 (600-1½)	2060-2¼ 682 (700-2¼)

REIL Rwy 27 (L)
MIRL Rwys 9-27 and 14-32 (L)

NC-1. 03 JUN 2010 to 01 JUL 2010

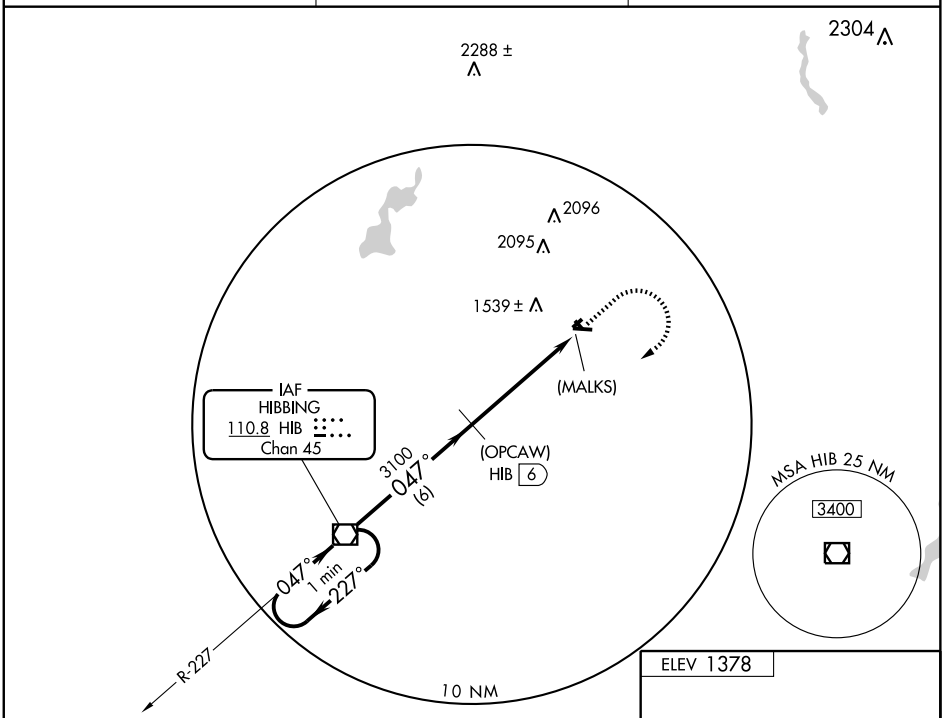
VOR/DME HIB	APP CRS	Rwy Idg	N/A
110.8	047°	TDZE	N/A
Chan 45		Apt Elev	1378

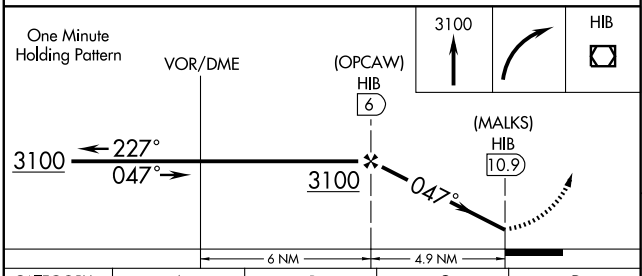
VOR/DME or GPS-A

EVELETH-VIRGINIA MUNI (EVM)

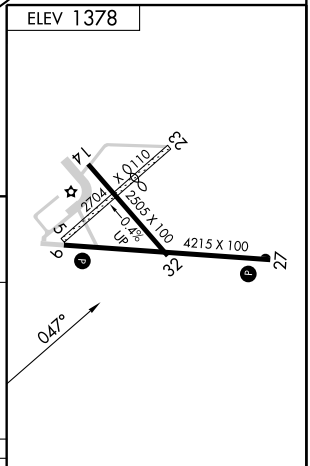
MISSED APPROACH: Climb to 3100 then right turn direct HIB VOR/DME and hold.

AWOS-3	DULUTH APP CON ★	UNICOM
108.2	125.45 255.9	122.7 (CTAF) L





CATEGORY	A	B	C	D
CIRCLING	2120-1 742 (800-1)	2120-1¼ 742 (800-1¼)	2120-2¼ 742 (800-2¼)	2120-2½ 742 (800-2½)



REIL Rwy 27 L
MIRL Rwys 9-27 and 14-32 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME EVM	APP CRS	Rwy Idg	4215
108.2	268°	TDZE	1369
Chan 19		Apt Elev	1378

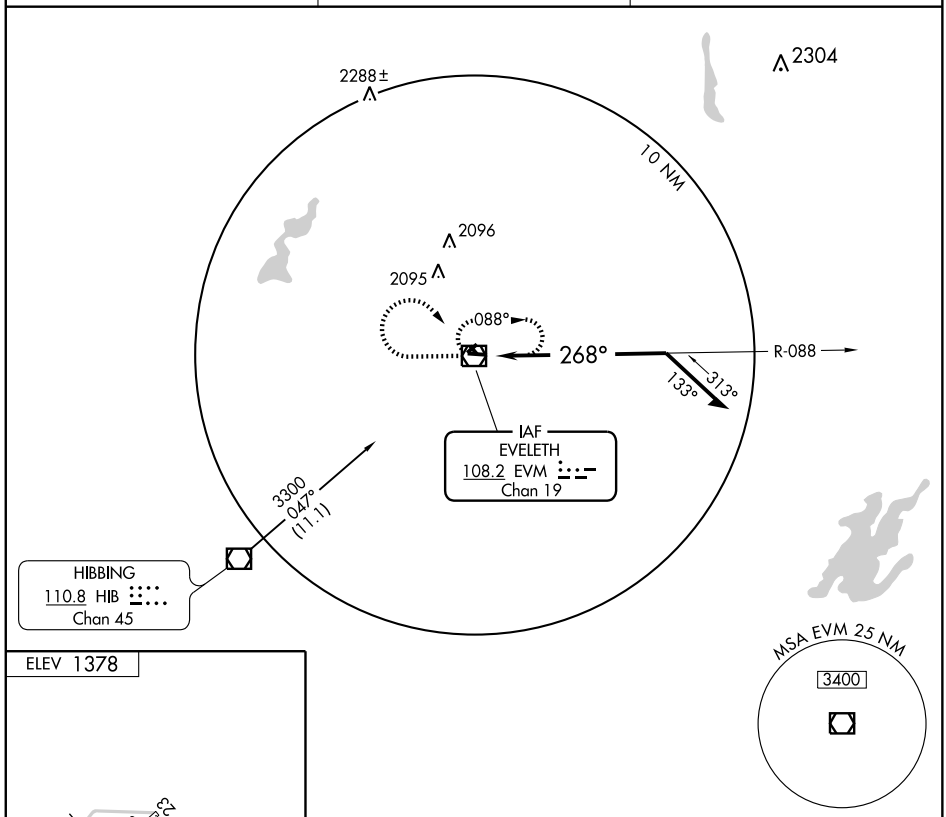
VOR RWY 27

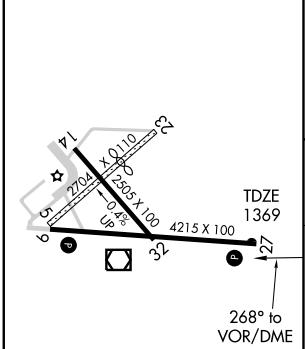
EVELETH-VIRGINIA MUNI (EVM)

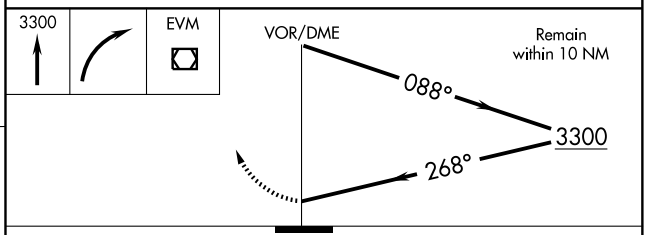
If local altimeter setting not received, use Range Rgnl altimeter setting and increase all MDAs 40 feet. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3300 then right turn direct EVM VOR/DME and hold.

AWOS-3	DULUTH APP CON ★	UNICOM
108.2	125.45 255.9	122.7 (CTAF) L







CATEGORY	A	B	C	D
S-27	1820-1 451 (500-1)		1820-1¼ 451 (500-1¼)	1820-1½ 451 (500-1½)
CIRCLING	1900-1 522 (600-1)	1960-1 582 (600-1)	1980-1¾ 602 (700-1¾)	2040-2 662 (700-2)

REIL Rwy 27 L
MIRL Rwys 9-27 and 14-32 L

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-FQJ	APP CRS	Rwy Idg	5505
111.1	310°	TDZE	1162
		Apt Elev	1162

COPTER ILS RWY 31

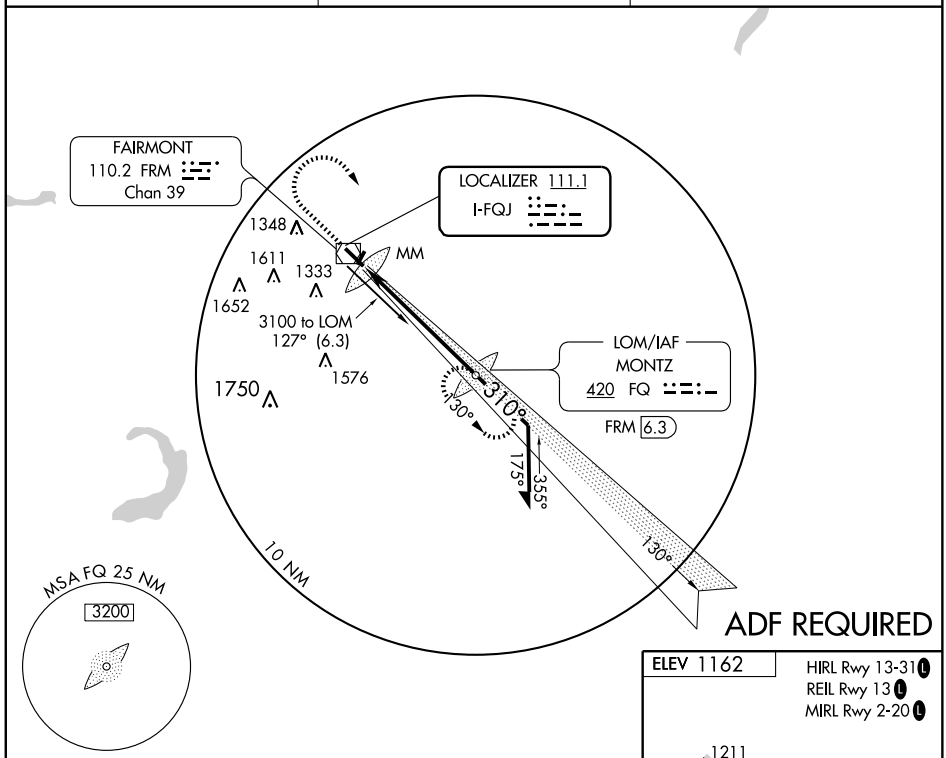
FAIRMONT MUNI (FRM)

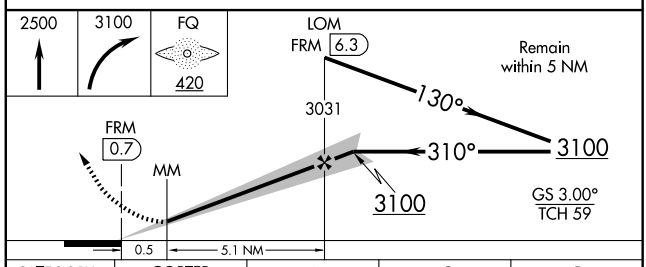
NA
For inoperative MALSR increase visibility to ½ mile.

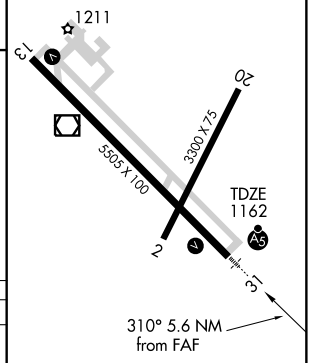
MALSR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3100 direct MONTZ LOM and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.2	127.75 257.7	122.8 (CTAF) L







CATEGORY	COPTER	B	C	D
S-ILS 31	1362-¼ 200 (200-¼)	NA		
S-LOC 31	1540-¼ 378 (400-¼)	NA		
CIRCLING	NA			

FAF to MAP 5.6 NM					
Knots	45	60	75	90	105
Min:Sec	7:28	5:36	4:29	3:44	3:12

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-FQJ	APP CRS	Rwy Idg	5505
111.1	310°	TDZE	1162
		Apt Elev	1162

ILS or LOC RWY 31

FAIRMONT MUNI (FRM)

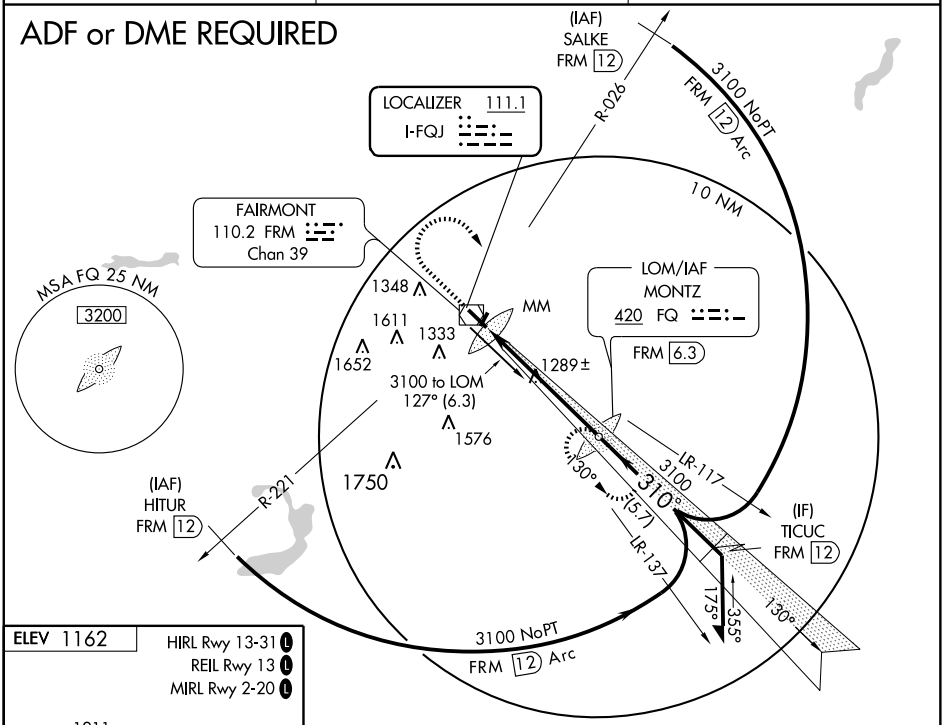
ADF required.
NA Autopilot coupled approach NA below 1480 feet MSL.
S-ILS-31: Inoperative table does not apply.
S-LOC-31: For inoperative MALSR increase Cats A, B, and C visibility to 1, Cat D visibility to 1¼.

MALSR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3100 direct MONTZ LOM/ FRM 6.3 DME and hold.

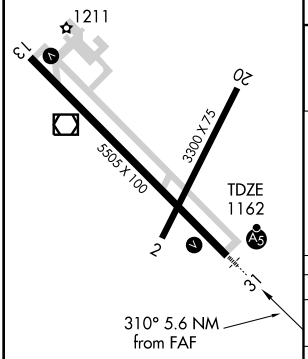
AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.2	127.75 257.7	122.8 (CTAF) L

ADF or DME REQUIRED

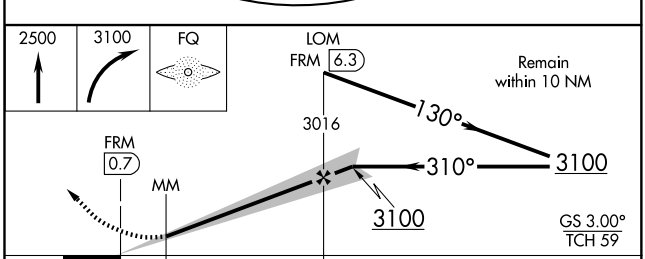


ELEV 1162

HIRL Rwy 13-31 L
REIL Rwy 13 L
MIRL Rwy 2-20 L



FAF to MAP 5.6 NM					
Knots	60	90	120	150	180
Min:Sec	5:36	3:44	2:48	2:14	1:52



CATEGORY	A	B	C	D
S-ILS 31	1412-¾ 250 (300-¾)			
S-LOC 31	1540-¾ 378 (400-¾)			
CIRCLING	1640-1 478 (500-1)		1640-1½ 478 (500-1½)	1720-2 558 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

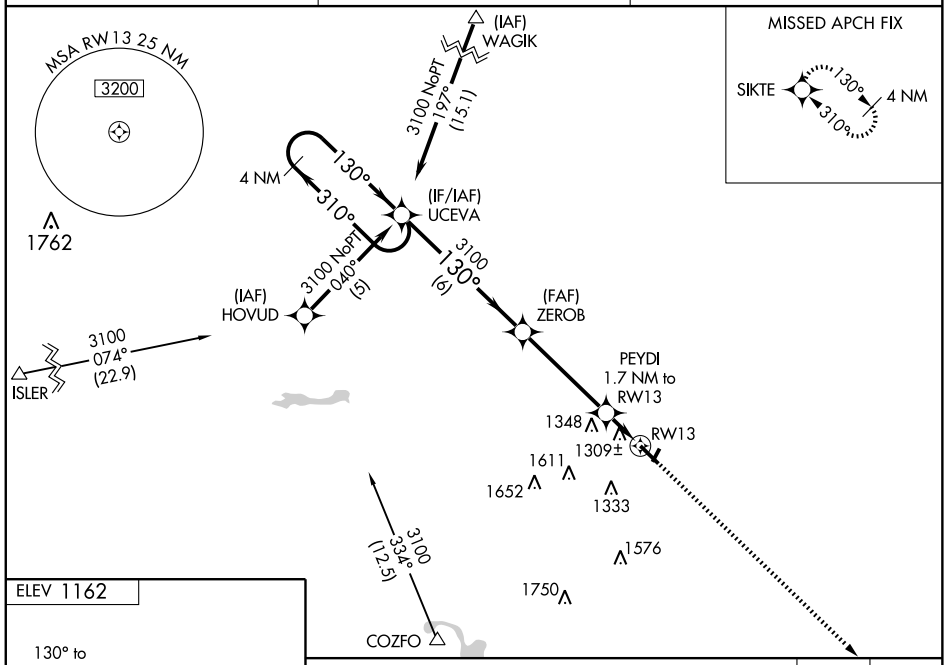
WAAS	APP CRS	Rwy Idg	5505
CH 45812	130°	TDZE	1162
W13A		Apt Elev	1162

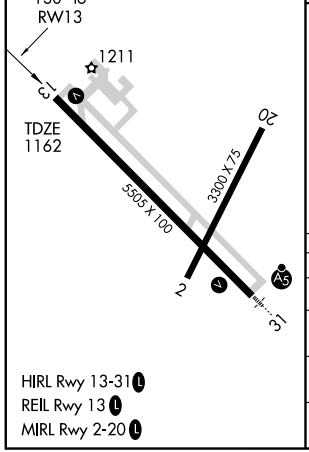
RNAV (GPS) RWY 13
FAIRMONT MUNI (FRM)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F).
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use St. James altimeter setting and increase all DA 63 feet and all MDA 80 feet, increase LPV all Cats visibility and LNAV Cat C/D visibility ¼ mile.
Baro-VNAV and VDP NA when using St. James altimeter setting.

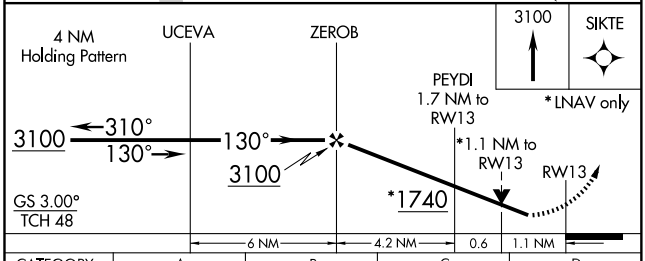
MISSED APPROACH: Climb to 3100 direct SIKTE and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.2	127.75 257.7	122.8 (CTAF) L





HIRL Rwy 13-31 L
REIL Rwy 13 L
MIRL Rwy 2-20 L



CATEGORY	A	B	C	D
LPV DA	1460-1 298 (300-1)			
LNAV/VNAV DA	1695-2 533 (600-2)			
LNAV MDA	1560-1 398 (400-1)			1560-1¼ 398 (400-1¼)
CIRCLING	1640-1 478 (500-1)		1640-1½ 478 (500-1½)	1720-2 558 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH **90412** **W31A**	APP CRS **310°**	Rwy Idg **5505** TDZE **1162** Apt Elev **1162**

RNAV (GPS) RWY 31

FAIRMONT MUNI (FRM)

For inoperative MALSR, increase LPV all Cats visibility to 1 mile and LNAV Cat D visibility to 1¼ mile.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA.
When local altimeter setting not received, use St. James altimeter setting and increase all DA 63 feet and all MDA 80 feet, increase LPV and LNAV/VNAV all Cats visibility and LNAV Cat C visibility ¼ mile.
Baro-VNAV NA when using St. James altimeter setting.
For inoperative MALSR when using St. James altimeter setting, increase LPV all Cats visibility ½ mile.

MALSR

MISSED APPROACH: Climb to 3100 direct UCEVA and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.2	**127.75 257.7**	**122.8** (CTAF) L

MISSED APCH FIX

4 NM 130° 310° UCEVA

Procedure NA for arrivals at BLEND via V170 eastbound, and arrivals at GRUVE via V219 southwest bound.

BLEND 3100 206° (8)

1348 1289± 1279± 1611 1652 RW31 1333 CUYDA 1.6 NM to RW31

1576 1750

(FAF) NAYIG 3100 310° (6)

(IAF) VOPPU 3100 NoPT 220° (5)

130° 310° 4 NM

(IF/IAF) SIKTE 3100 NoPT 040° (5)

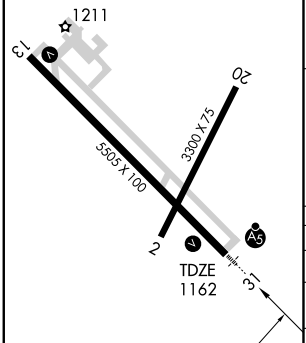
(IAF) RUYOR

GRUVE 3100 074° (25.2)

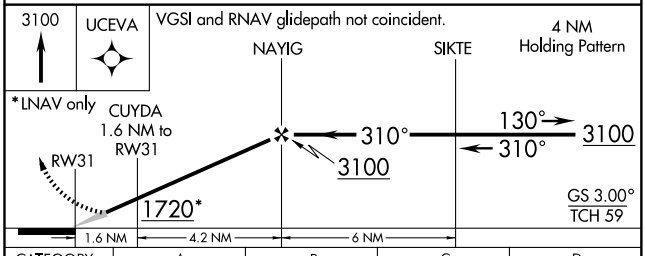
3100 328° (13.9) BANCO

MSA RW31 25 NM 3200

ELEV 1162



HIRL Rwy 13-31 L
REIL Rwy 13 L
MIRL Rwy 2-20 L



CATEGORY	A	B	C	D
LPV DA	1467-½ 305 (400-½)			
LNAV/VNAV DA	1581-1 419 (500-1)			
LNAV MDA	1560-½ 398 (400-½)			1560-1 398 (400-1)
CIRCLING	1640-1 478 (500-1)		1640-1½ 478 (500-1½)	1720-2 558 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

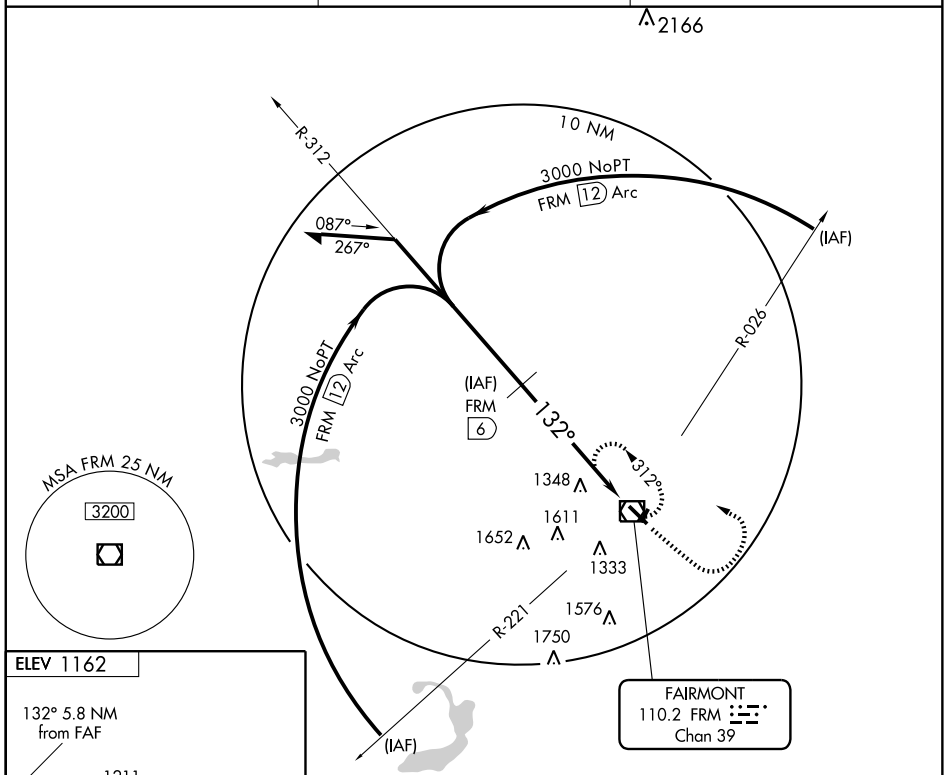
VOR/DME FRM	APP CRS	Rwy Idg	5505
110.2	132°	TDZE	1162
Chan 39		Apt Elev	1162

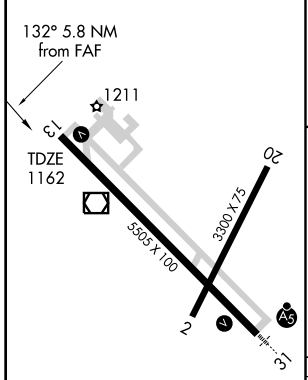
VOR/DME RWY 13

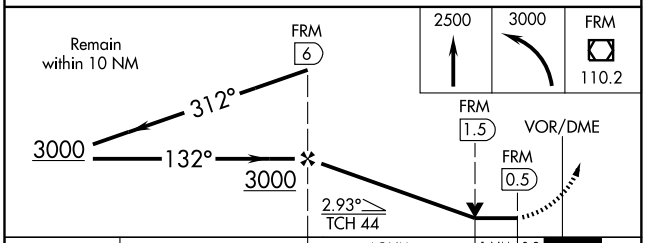
FAIRMONT MUNI (FRM)

MISSED APPROACH: Climb to 2500 then climbing left turn to 3000 direct FRM VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.2	127.75 257.7	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-13	1620-1 458 (500-1)		1620-1¼ 458 (500-1¼)	1620-1½ 458 (500-1½)
CIRCLING	1660-1 498 (500-1)		1660-1½ 498 (500-1½)	1720-2 558 (600-2)

HIRL Rwy 13-31 L
REIL Rwy 13 L
MIRL Rwy 2-20 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME FRM	APP CRS	Rwy Idg	5505
110.2	305°	TDZE	1162
Chan 39		Apt Elev	1162

VOR/DME RWY 31

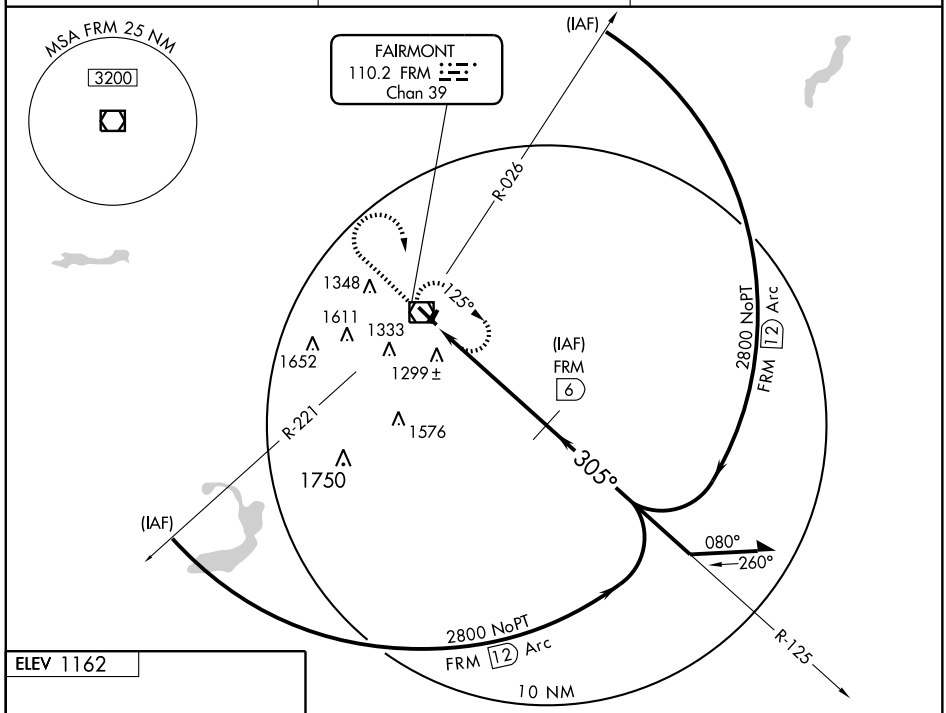
FAIRMONT MUNI (FRM)

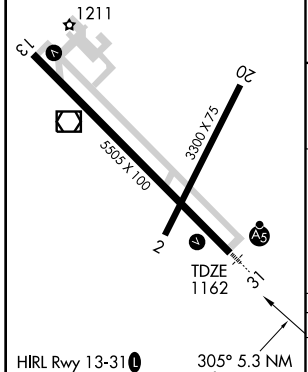
Category D S-31 visibilities increased ¼ mile for inoperative MALSR. Inoperative components table does not apply to Categories A, B and C.

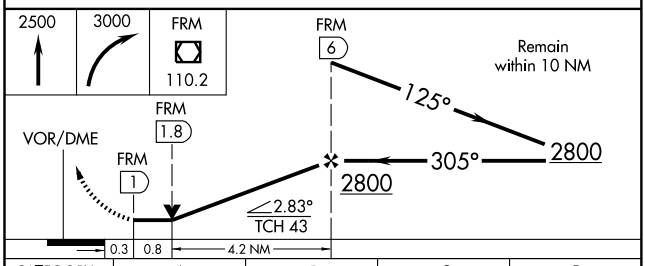
MALSR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3000 direct FRM VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.2	127.75 257.7	122.8 (CTAF)







CATEGORY	A	B	C	D
S-31	1560-1 398 (400-1)			
CIRCLING	1660-1 498 (500-1)		1660-1½ 498 (500-1½)	1720-2 558 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

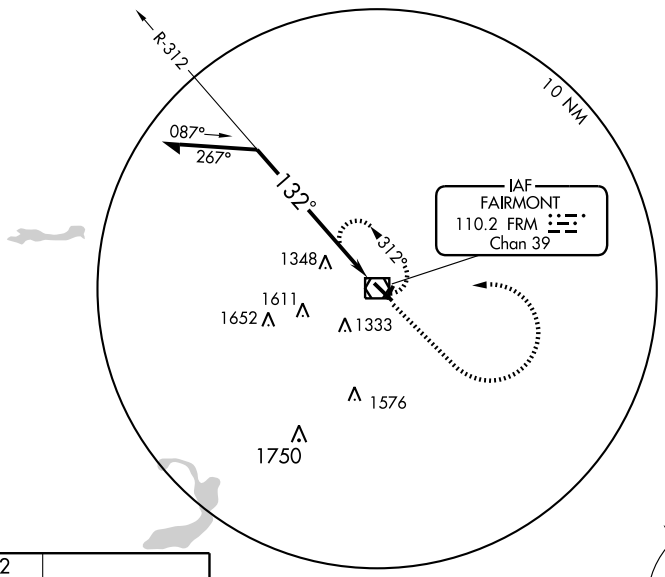
VOR/DME FRM	APP CRS	Rwy Idg	5505
110.2	132°	TDZE	1162
Chan 39		Apt Elev	1162

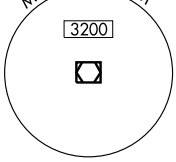
VOR RWY 13
FAIRMONT MUNI (FRM)

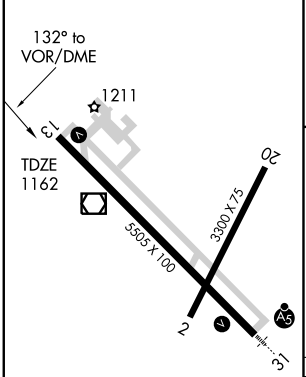
Visibility reduction by helicopters NA.
When local altimeter setting not received, use St. James altimeter setting and increase all MDA 80 feet, increase S-13 Cat C/D visibility and circling Cat C visibility ¼ mile.
VDP NA when using St. James altimeter setting.

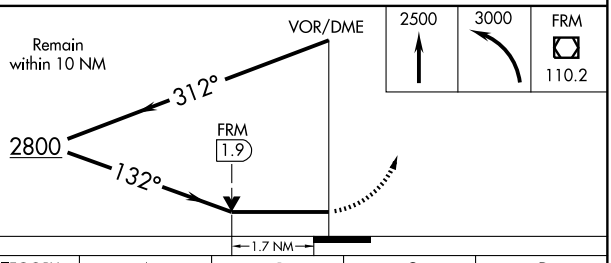
MISSED APPROACH: Climb to 2500 then climbing left turn to 3000 direct FRM VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.2	127.75 257.7	122.8 (CTAF) L









CATEGORY	A	B	C	D
S-13	1740-1 578 (600-1)		1740-1½ 578 (600-1½)	1740-1¾ 578 (600-1¾)
CIRCLING	1740-1 578 (600-1)		1740-1½ 578 (600-1½)	1740-2 578 (600-2)

HIRL Rwy 13-31 L
REIL Rwy 13 L
MIRL Rwy 2-20 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME FRM	APP CRS	Rwy Idg	5505
110.2	305°	TDZE	1162
Chan 39		Apt Elev	1162

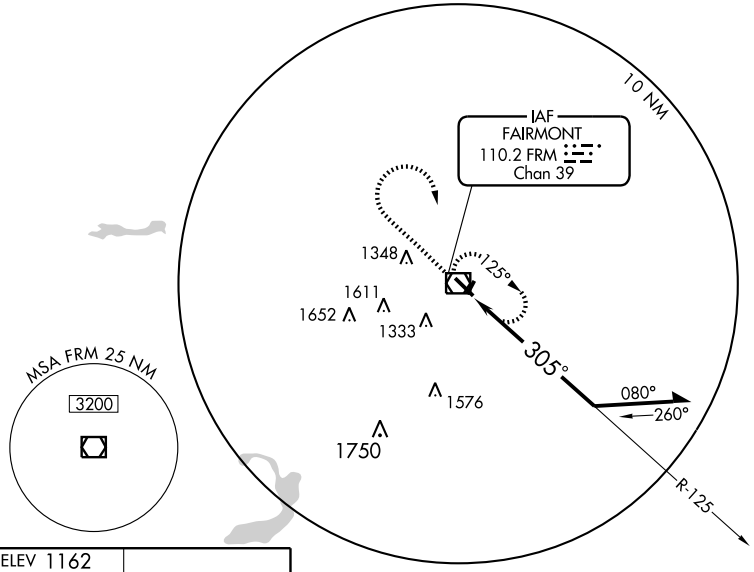
VOR RWY 31
FAIRMONT MUNI (FRM)

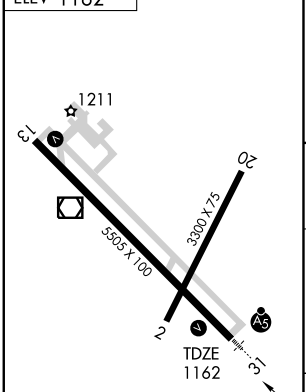
T A When local altimeter setting not received, use St. James altimeter setting and increase all MDA 80 feet, increase S-31 Cat C/D visibility and circling Cat C visibility ¼ mile. VDP NA when using St. James altimeter setting.

MALSR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3000 direct FRM VOR/DME and hold.

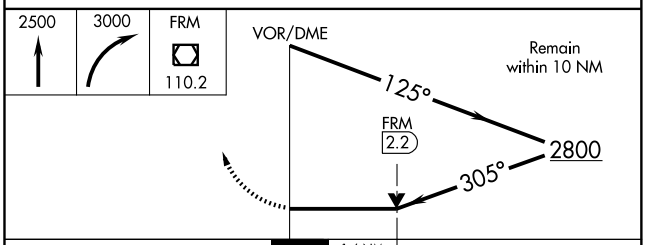
AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.2	127.75 257.7	122.8 (CTAF) L





HIRL Rwy 13-31 L
REIL Rwy 13 L
MIRL Rwy 2-20 L

305° to VOR/DME

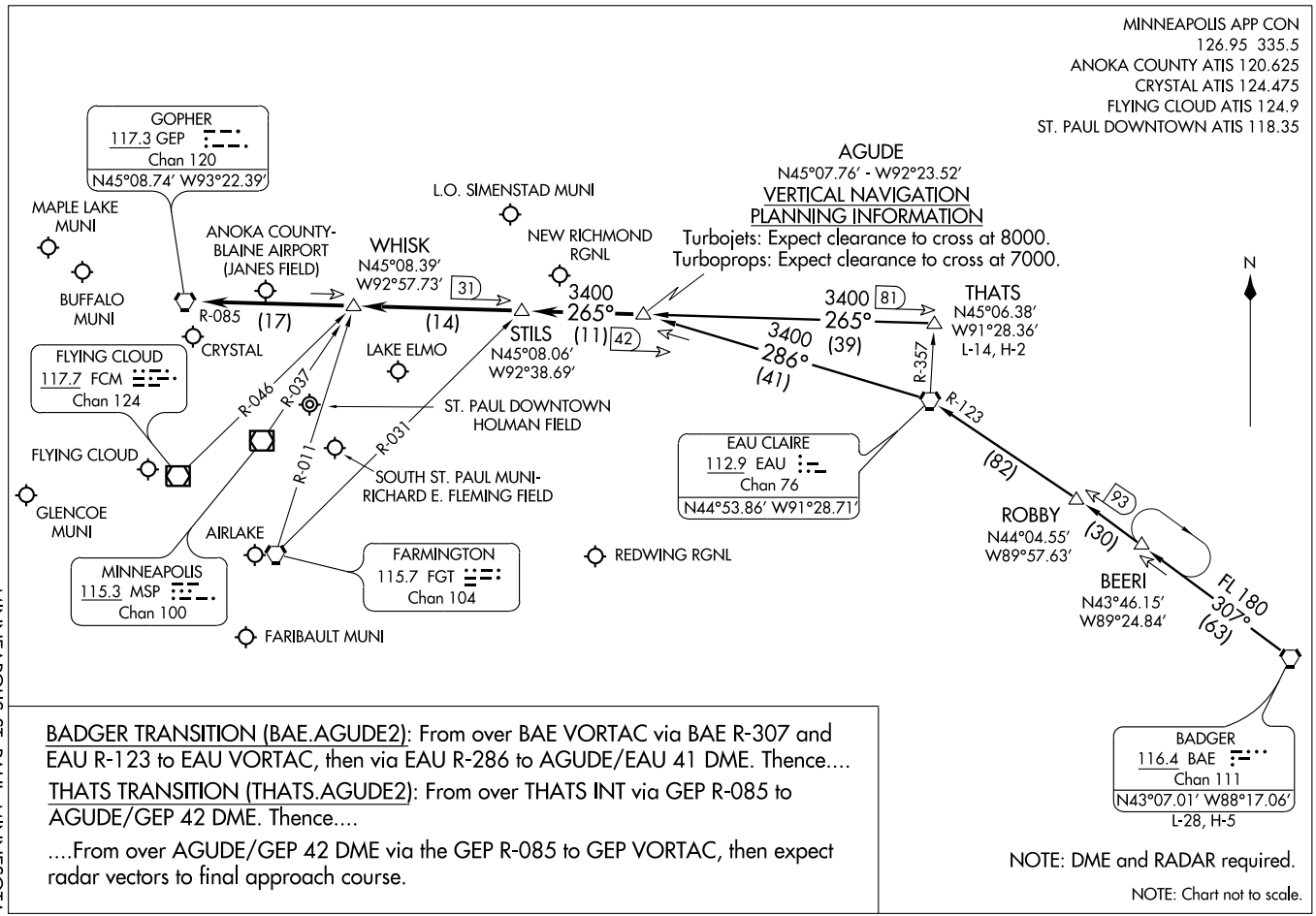


CATEGORY	A	B	C	D
S-31	1700-½ 538 (600-½)		1700-1 538 (600-1)	1700-1¼ 538 (600-1¼)
CIRCLING	1700-1 538 (600-1)		1700-1½ 538 (600-1½)	1720-2 558 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

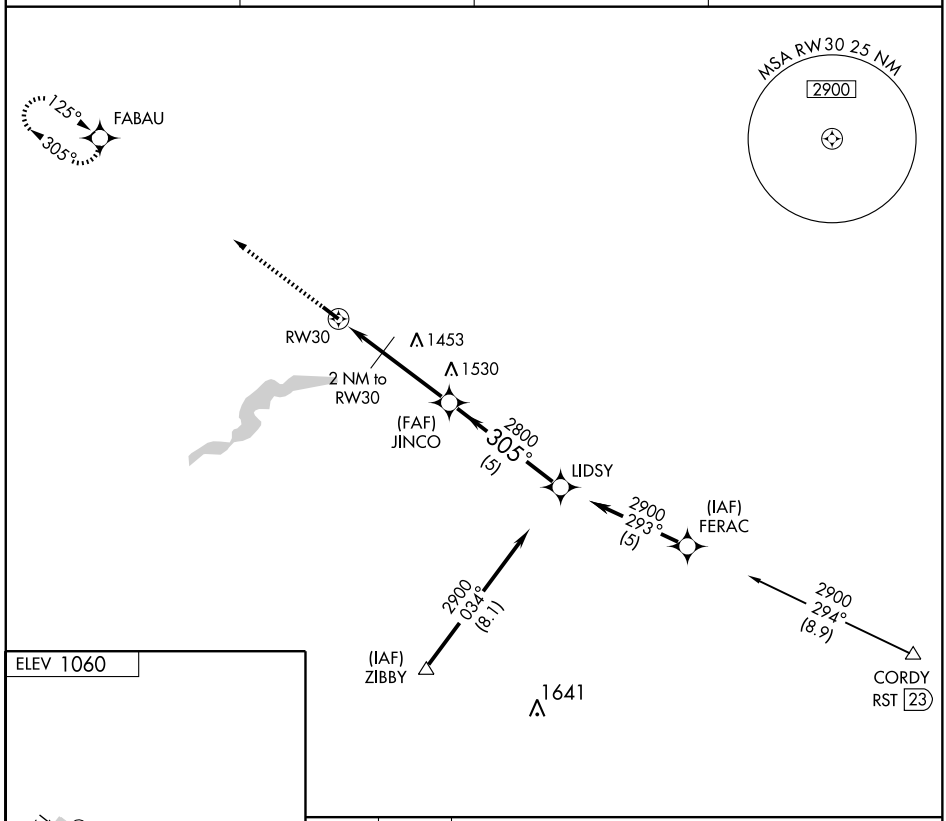
APP CRS	Rwy Idg	4017
305°	TDZE	1055
	Apt Elev	1060

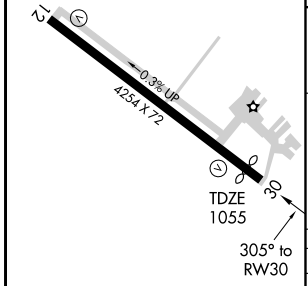
GPS RWY 30
FARIBAULT MUNI (FBL)

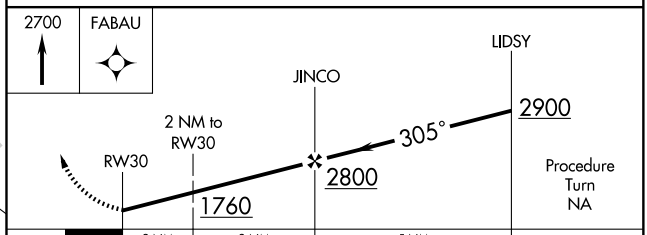
NA

MISSED APPROACH: Climb to 2700 direct FABAU WP and hold.

AWOS-3	MINNEAPOLIS APP CON	GCO	UNICOM
111.2	134.7 284.7	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-30	1480-1 425 (500-1)		1480-1¼ 425 (500-1¼)	NA
CIRCLING	1520-1 460 (500-1)	1540-1 480 (500-1)	1540-1½ 480 (500-1½)	NA

REIL Rwys 12 and 30 L
MIRL Rwy 12-30 L

NC-1, 03 JUN 2010 to 01 JUL 2010

FARIBAULT, MINNESOTA

AL-5425 (FAA)

VOR/DME FOW	APP CRS	Rwy Idg	4254
111.2	125°	TDZE	1060
Chan 49		Apt Elev	1060

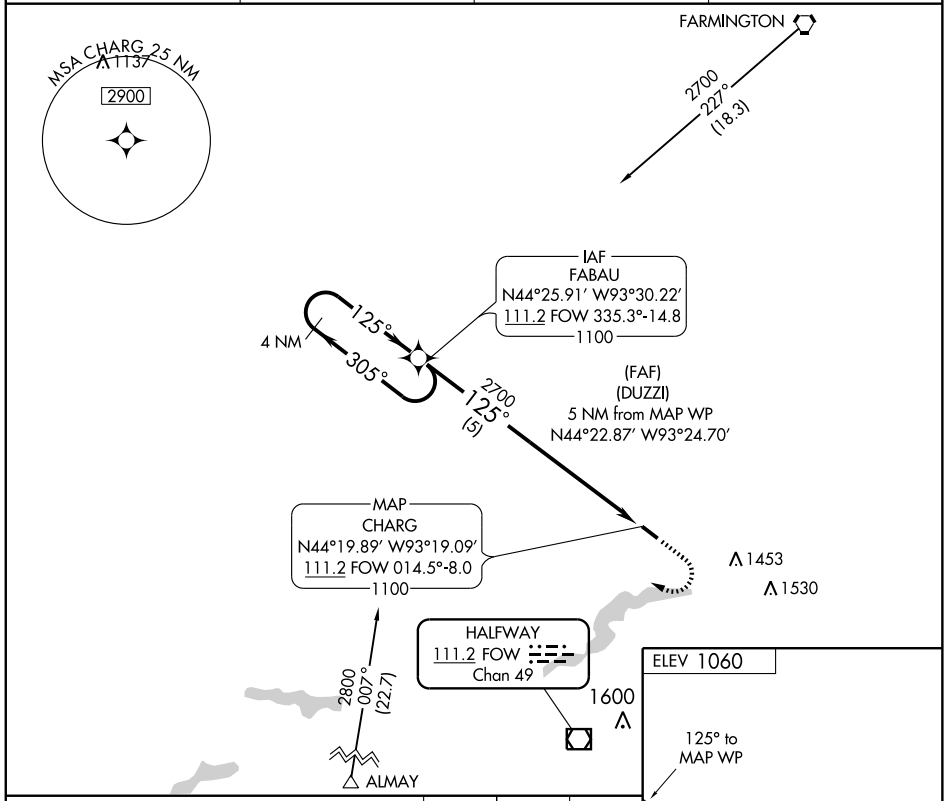
VOR/DME RNAV or GPS RWY 12

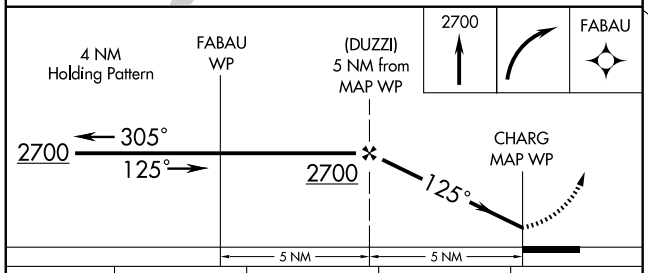
FARIBAULT MUNI (FBL)

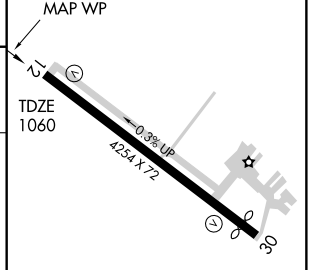
NA

MISSED APPROACH: Climb to 2700 then right turn direct FABAU WP and hold.

AWOS-3	MINNEAPOLIS APP CON	GCO	UNICOM
111.2	134.7 284.7	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-12	1520-1 460 (500-1)		1520-1¼ 460 (500-1¼)	NA
CIRCLING	1520-1 460 (500-1)	1540-1 480 (500-1)	1540-1½ 480 (500-1½)	NA

REIL Rwys 12 and 30 L

MIRL Rwy 12-30 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME FOW 111.2 Chan 49	APP CRS 018°	Rwy Idg N/A TDZE N/A Apt Elev 1060

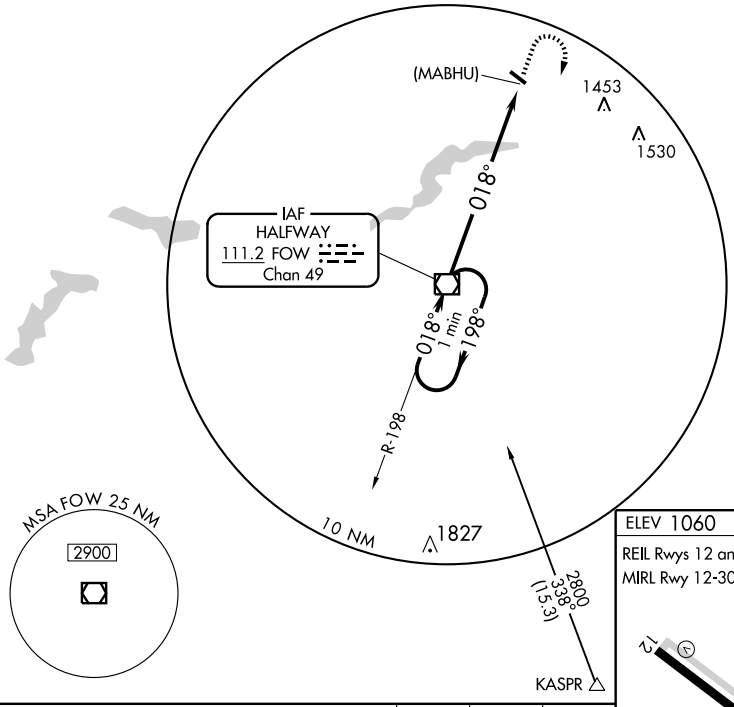
VOR or GPS-A

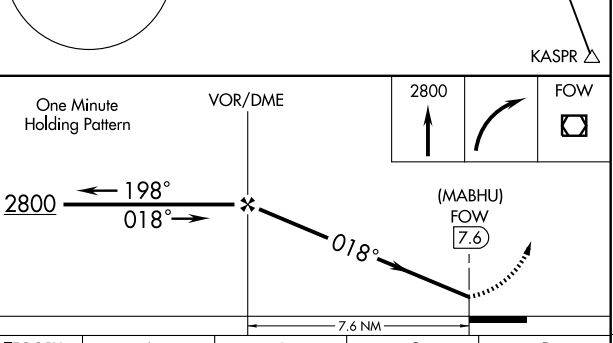
FARIBAULT MUNI (FBL)

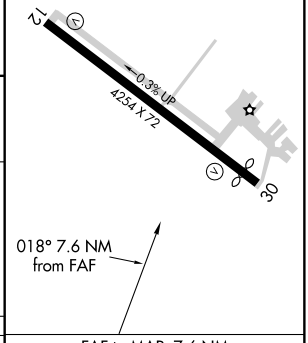
⚠ NA

MISSED APPROACH: Climb to 2800 then right turn direct FOW VOR/DME and hold.

AWOS-3	MINNEAPOLIS APP CON	GCO	UNICOM
111.2	134.7 284.7	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	1640-1 580 (600-1)		1640-1½ 580 (600-1½)	NA

FAF to MAP 7.6 NM

Knots	60	90	120	150	180
Min:Sec	7:36	5:04	3:48	3:02	2:32

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-FFM	APP CRS		
111.5	308°	Rwy Idg	5639
		TDZE	1182
		Apt Elev	1183

ILS or LOC RWY 31

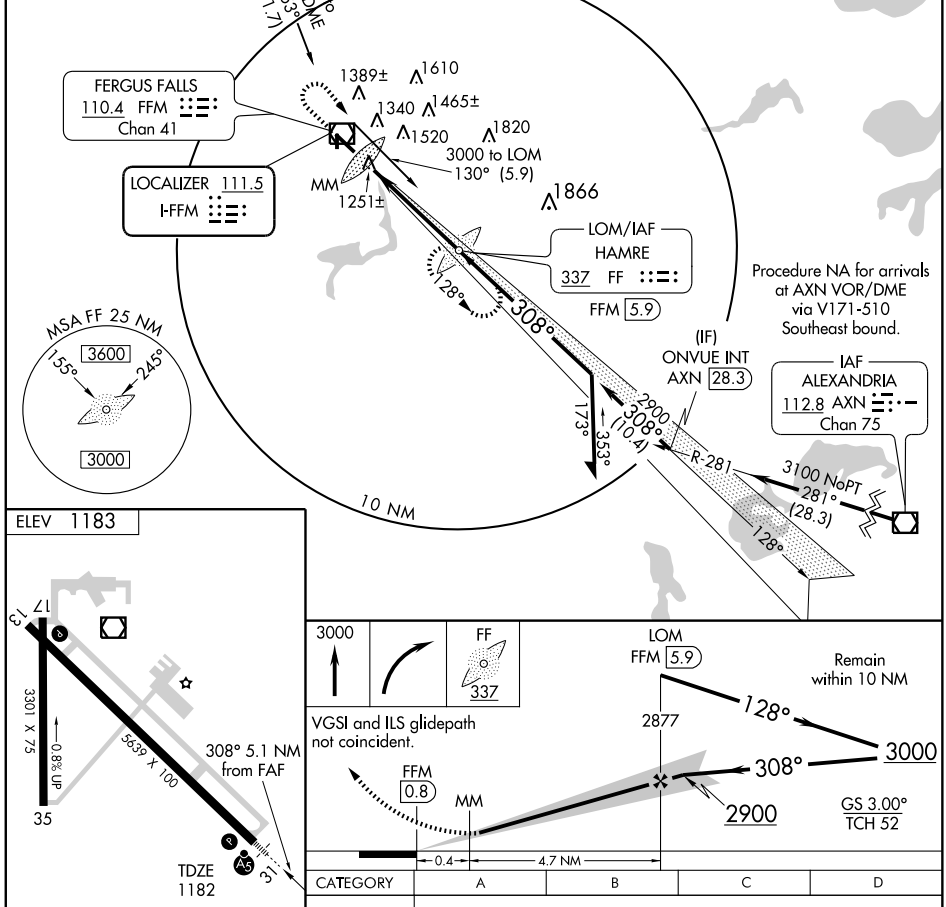
FERGUS FALLS MUNI-EINAR MICKELSON FIELD (FFM)

When local altimeter setting not received, use Wheaton altimeter setting and increase all DA 102 feet and all MDA 120 feet, increase S-LOC 31 and Circling Cat C and D visibility ½ mile. For inoperative MALSR, increase S-LOC 31 Cat D visibility ¼ mile. For inoperative MALSR when using Wheaton altimeter setting, increase S-ILS 31 all Cats visibility ½ mile. GS unusable for coupled approaches below 1400.

MALSR

MISSED APPROACH:Climb to 3000 then right turn direct HAMRE LOM/FFM 5.9 DME and hold.

AWOS-3	PRINCETON RADIO	UNICOM
110.4	122.35	122.8 (CTAF) L



REIL Rwys 13 and 35 L
MIRL Rwys 13-31 and 17-35 L

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

CATEGORY	A	B	C	D
S-ILS 31	1382-½ 200 (200-½)			
S-LOC 31	1520-1½ 338 (400-½)			1520-¾ 338 (400-¾)
CIRCLING	1640-1 457 (500-1)	1740-1 557 (600-1)	1740-1½ 557 (600-1½)	1880-2¼ 697 (700-2¼)

NC-1, 03 JUN 2010 to 01 JUL 2010

LOM FF	APP CRS	Rwy Idg	5639
337	309°	TDZE	1182
		Apt Elev	1183

NDB RWY 31

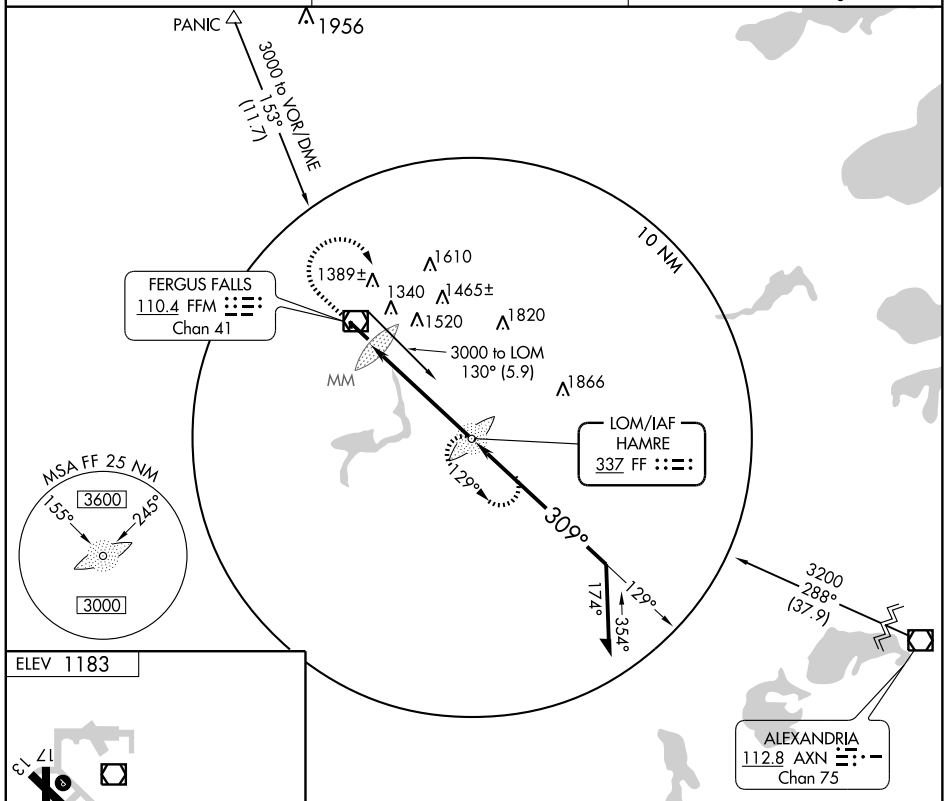
FERGUS FALLS MUNI-EINAR MICKELSON FIELD (FFM)

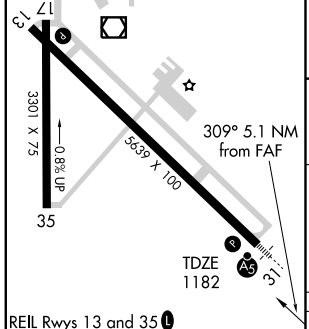
When local altimeter setting not received, use Wheaton altimeter setting and increase all MDA 120 feet, S-31 and Circling Cats C and D visibility ½ mile, Circling Cat B ¼ mile. For inoperative MALSR when using Wheaton altimeter setting, increase S-31 Cat B visibility ½ mile.

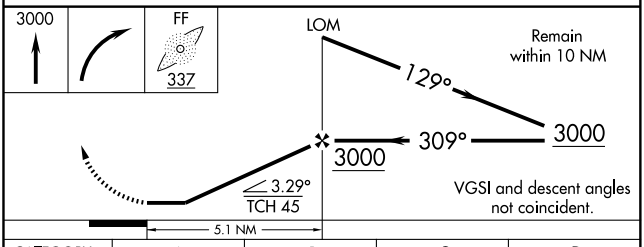
MALSR

MISSED APPROACH: Climb to 3000 then right turn direct FF LOM and hold.

AWOS-3	PRINCETON RADIO	UNICOM
110.4	122.35	122.8 (CTAF) L







REIL Rwys 13 and 35 L
MIRL Rwys 13-31 and 17-35 L

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

CATEGORY	A	B	C	D
S-31	1880-¾ 698 (700-¾)		1880-1½ 698 (700-1½)	1880-2 698 (700-2)
CIRCLING	1880-1 697 (700-1)		1880-2 697 (700-2)	1880-2¼ 697 (700-2¼)

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 42614 W31A	APP CRS 308°	Rwy Idg 5639 TDZE 1182 Apt Elev 1183

RNAV (GPS) RWY 31

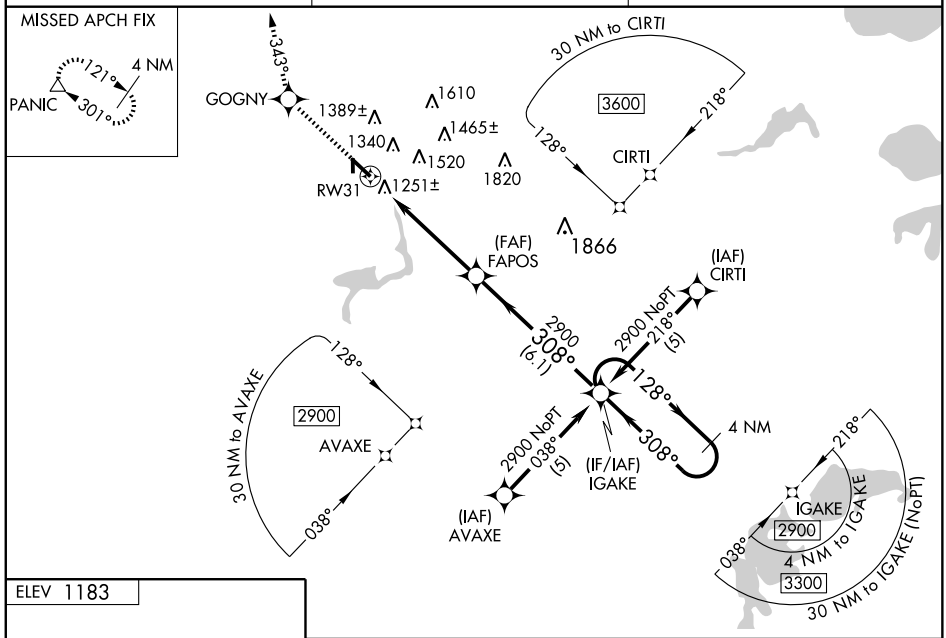
FERGUS FALLS MUNI-EINAR MICKELSON FIELD (FFM)

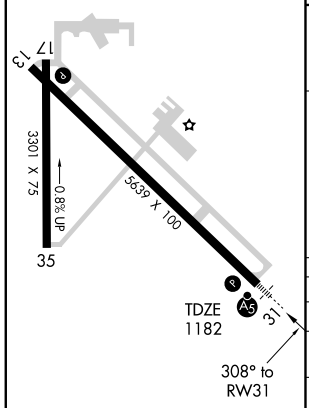
T A Inoperative table does not apply to LNAV Cat D. Baro-VNAV NA when using Wheaton altimeter setting. DME/DME RNP-0.3 NA. When local altimeter settting not received, use Wheaton altimeter setting and increase all DA 102 feet and all MDA 120 feet, LNAV/VNAV all Cats and Circling Cats C and D visibility ½ mile and LNAV Cat C ¼ mile. For inoperative MALSR when using Wheaton altimeter setting, increase LPV all Cats visibility ½ mile.

MALSR

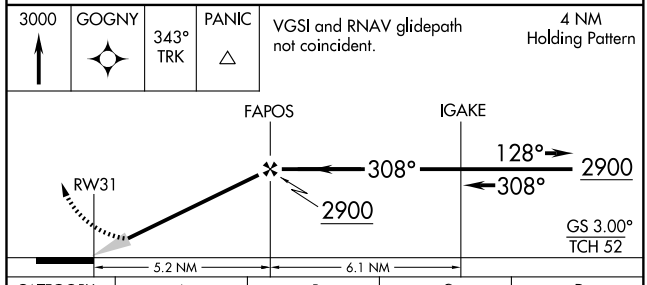
MISSED APPROACH: Climb to 3000 direct GOGNY and via track 343° to PANIC and hold.

AWOS-3	PRINCETON RADIO	UNICOM
110.4	122.35	122.8 (CTAF) L





REIL Rwys 13 and 35 L
MIRL Rwys 13-31 and 17-35 L



CATEGORY	A	B	C	D
LPV DA	1382-½ 200 (200-½)			
LNAV/VNAV DA	1545-¾ 363 (400-¾)			
LNAV MDA	1520-½ 338 (400-½)			1520-1 338 (400-1)
CIRCLING	1640-1 457 (500-1)	1740-1 557 (600-1)	1740-1½ 557 (600-1½)	1880-2¼ 697 (700-2¼)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3301
354°	TDZE	1182
	Apt Elev	1183

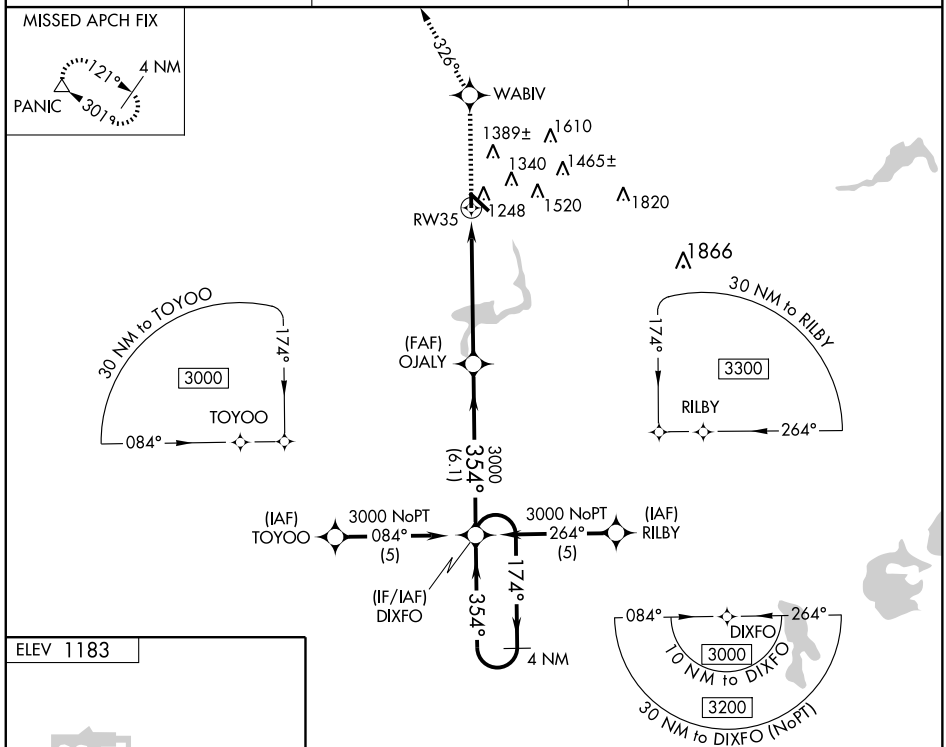
RNAV (GPS) RWY 35

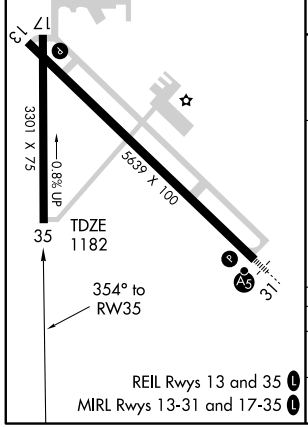
FERGUS FALLS MUNI-EINAR MICKELSON FIELD (FFM)

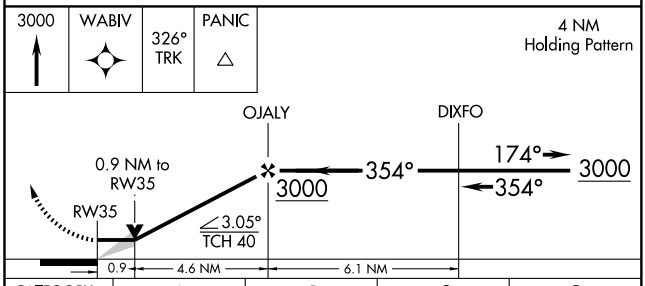
DME/DME RNP-0.3 NA. When local altimeter setting not received, use Wheaton altimeter setting and increase all MDA 120 feet and LNAV Cat C visibility ¼ mile, Circling Cat C ½ mile. VDP NA when using Wheaton altimeter setting.

MISSED APPROACH: Climb to 3000 direct WABIV and via track 326° to PANIC and hold.

AWOS-3	PRINCETON RADIO	UNICOM
110.4	122.35	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1500-1 318 (400-1)			NA
CIRCLING	1640-1 457 (500-1)	1740-1 557 (600-1)	1740-1½ 557 (600-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME FFM	APP CRS	Rwy Idg	5639
110.4	115°	TDZE	1182
Chan 41		Apt Elev	1183

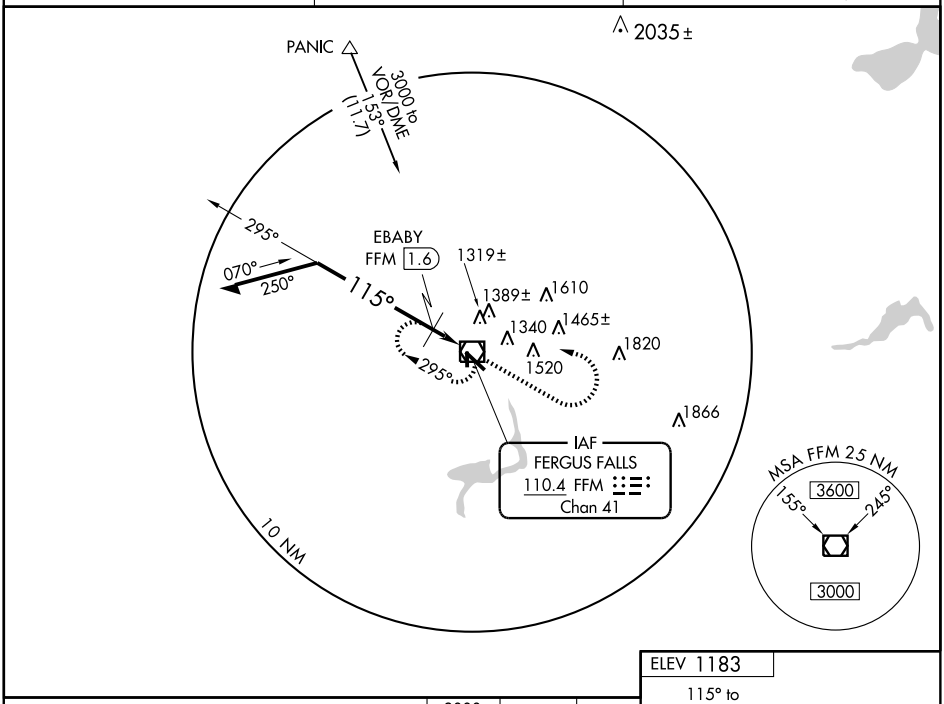
VOR RWY 13

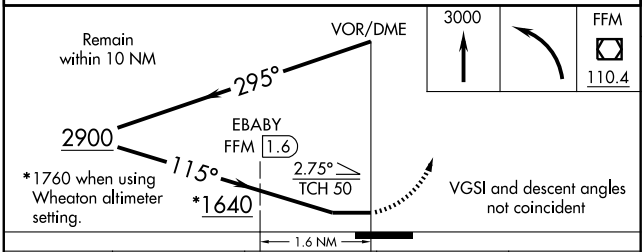
FERGUS FALLS MUNI-EINAR MICKELSON FIELD (FFM)

T NA — Cat D straight-in minima NA when using Wheaton altimeter setting. When local altimeter setting not received, use Wheaton altimeter setting and increase all MDA 120 feet, and S-13 Cat C and D visibility ¼ mile, Circling Cat C and D visibility ½ mile, increase EBABY FIX minimums S-13 and Circling Cat C and D visibility ½ mile.

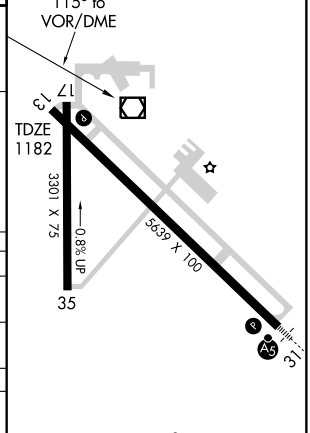
MISSED APPROACH: Climb to 3000 then left turn direct FFM VOR/DME and hold.

AWOS-3	PRINCETON RADIO	UNICOM
110.4	122.35	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-13	1640-1 458 (500-1)		1640-1¼ 458 (500-1¼)	1640-1½ 458 (500-1½)
CIRCLING	1640-1 457 (500-1)	1740-1 557 (600-1)	1740-1½ 557 (600-1½)	1880-2¼ 697 (700-2¼)
EBABY FIX MINIMUMS				
S-13	1580-1 398 (400-1)			1580-1¼ 398 (400-1¼)
CIRCLING	1640-1 457 (500-1)	1740-1 557 (600-1)	1740-1½ 557 (600-1½)	1880-2¼ 697 (700-2¼)



REIL Rwys 13 and 35 L
MIRL Rwys 13-31 and 17-35 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME FFM 110.4 Chan 41	APP CRS 004°	Rwy Idg 3301 TDZE 1182 Apt Elev 1183

VOR RWY 35

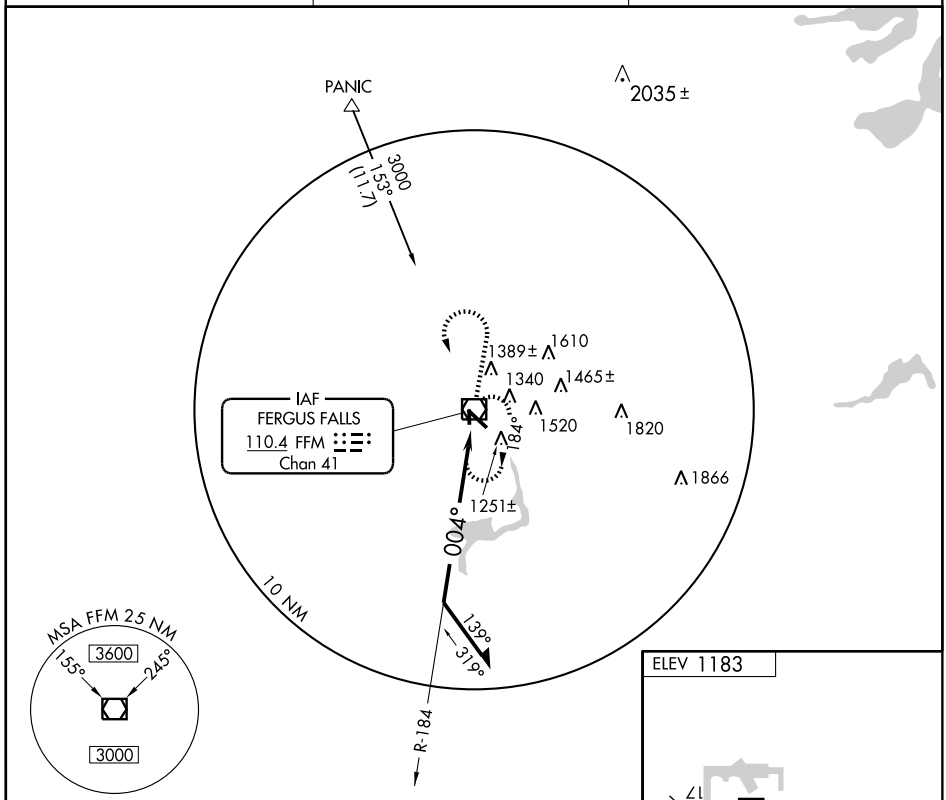
FERGUS FALLS MUNI-EINAR MICKELSON FIELD (FFM)

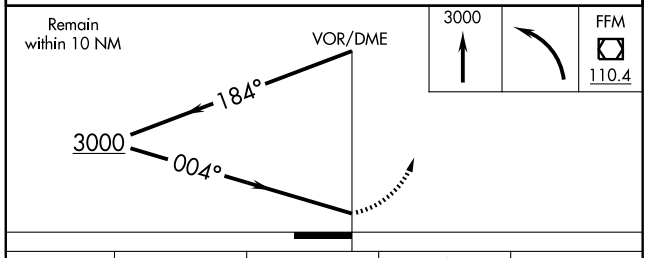
▼ NA

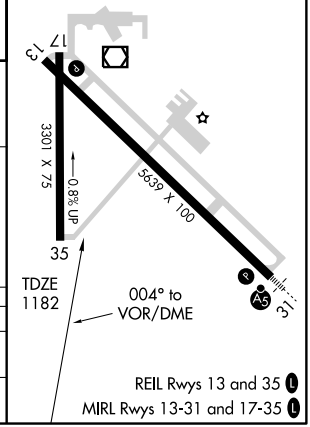
When local altimeter setting not received, use Wheaton altimeter setting and increase all MDA 120 feet, S-35 Cat C visibility ¼ mile and Circling Cat C visibility ½ mile

MISSED APPROACH: Climb to 3000 then left turn direct FFM VOR/DME and hold.

AWOS-3	PRINCETON RADIO	UNICOM
110.4	122.35	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-35	1600-1 418 (500-1)		1600-1¼ 418 (500-1¼)	NA
CIRCLING	1640-1 457 (500-1)	1740-1 557 (600-1)	1740-1½ 557 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB FSE	APP CRS	Rwy Idg	3501
224	352°	TDZE	1277
		Apt Elev	1277

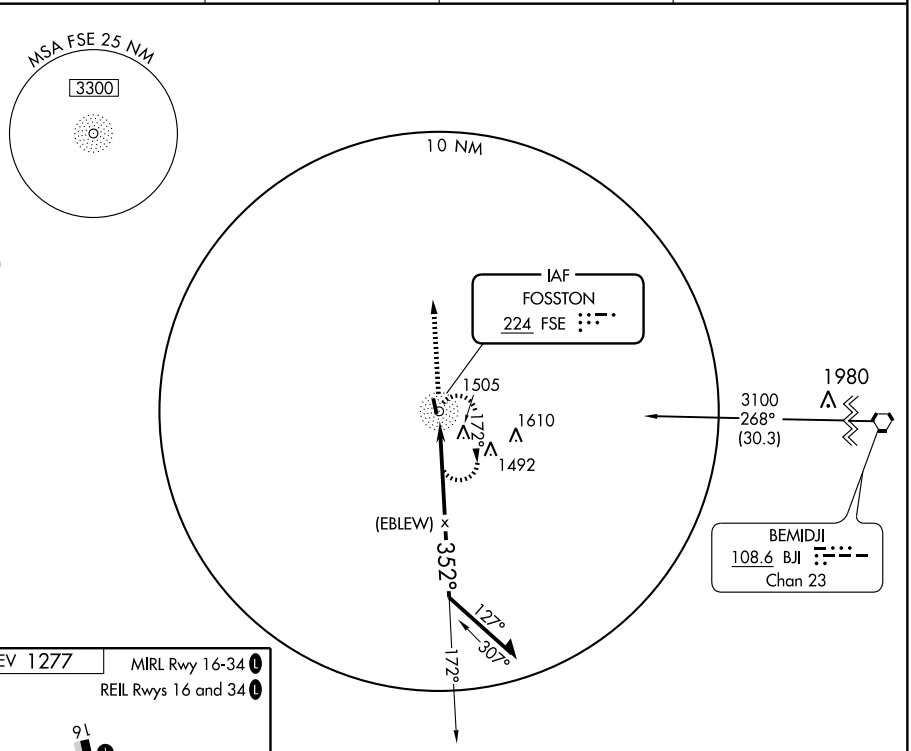
NDB or GPS RWY 34

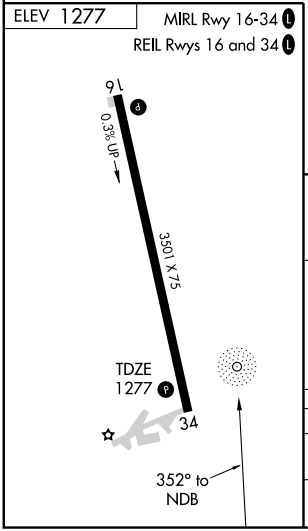
FOSSTON MUNI (FSE)

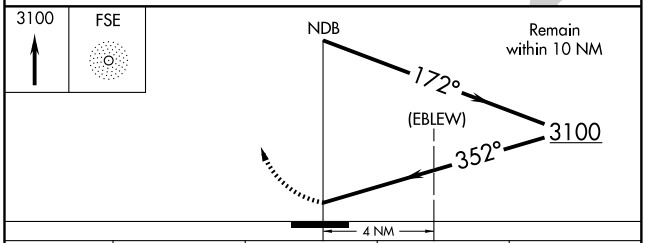
T
NA

MISSED APPROACH: Climb to 3100 then direct FSE NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
224	134.75 251.1	121.725	122.9 L





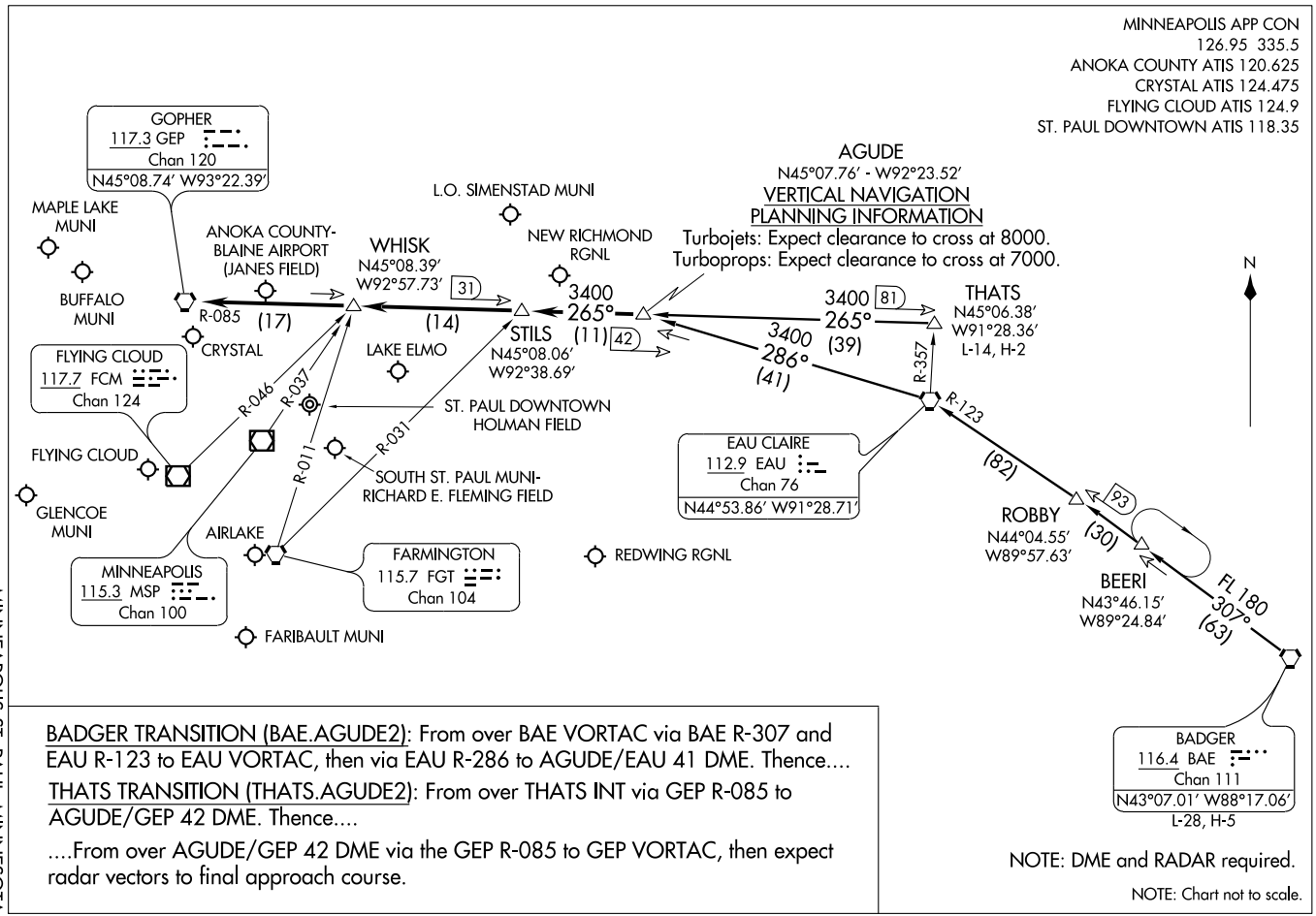


CATEGORY	A	B	C	D
S-34	1960-1 683 (700-1)		1960-2 683 (700-2)	NA
CIRCLING	1960-1 683 (700-1)		1960-2 683 (700-2)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

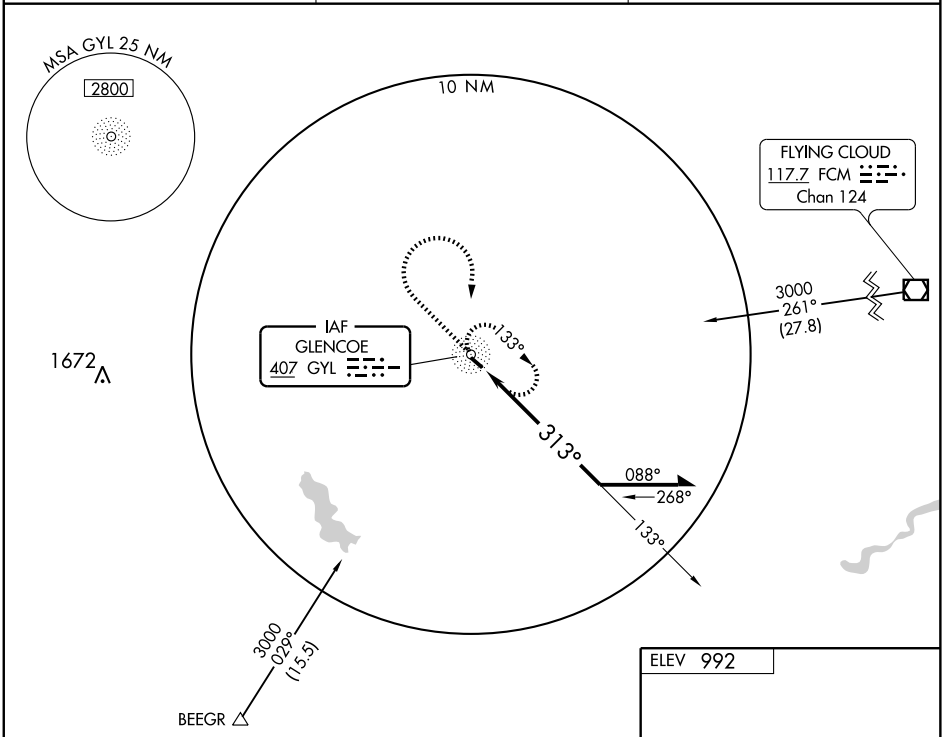
NDB GYL	APP CRS	Rwy Idg	3300
407	313°	TDZE	991
		Apt Elev	992

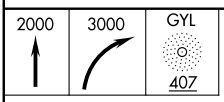
NDB RWY 31
GLENCOE MUNI (GYL)

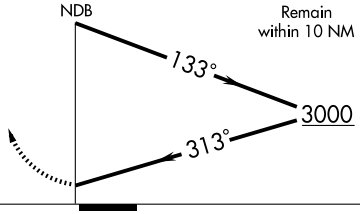
T
A NA Visibility reduction by helicopters NA. When local altimeter setting not received, use Hutchison altimeter setting and increase all MDA 60 feet.

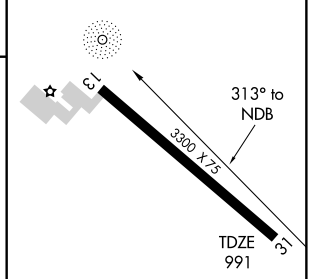
MISSSED APPROACH: Climb to 2000 then climbing right turn to 3000 direct GYL NDB and hold, continue climb-in-hold to 3000.

AWOS-3	MINNEAPOLIS APP CON	UNICOM
407	134.7 284.7	122.8 (CTAF) L









CATEGORY	A	B	C	D
S-31	1580-1	589 (600-1)	NA	
CIRCLING	1580-1	588 (600-1)	NA	

MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3300
308°	TDZE	991
	Apt Elev	992

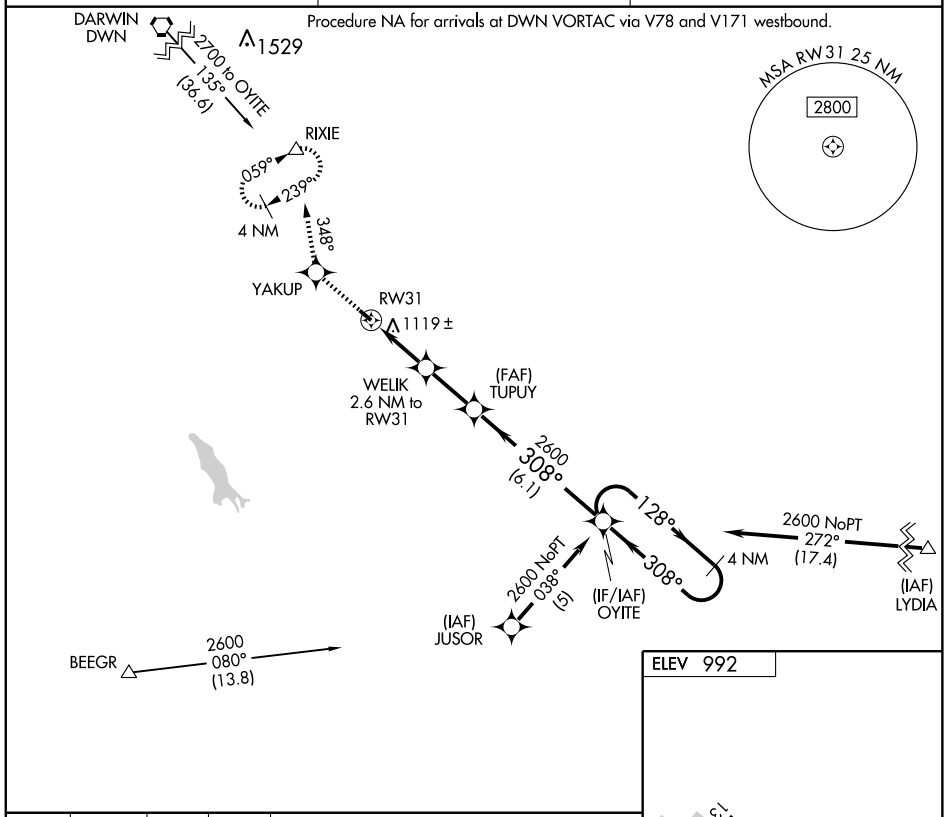
RNAV (GPS) RWY 31
GLENCOE MUNI (GYL)

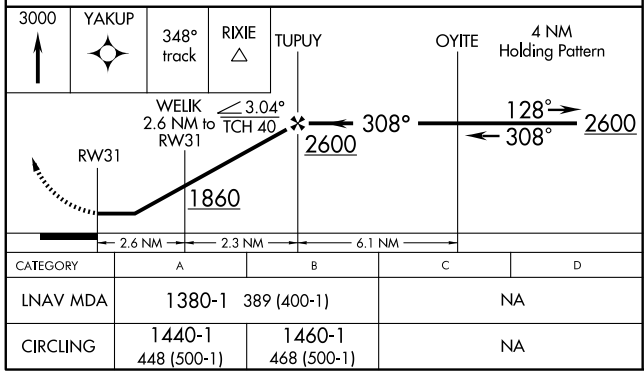
DME DME/RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Hutchinson altimeter setting and increase all MDA 60 feet.

MISSED APPROACH: Climb to 3000 direct YAKUP and via 348° track to RIXIE and hold, continue climb-in-hold to 3000.

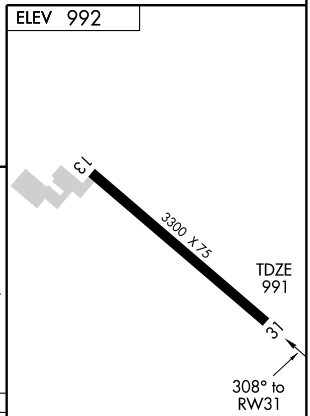
AWOS-3	MINNEAPOLIS APP CON	UNICOM
407	134.7 284.7	122.8 (CTAF) L

Procedure NA for arrivals at DWN VORTAC via V78 and V171 westbound.





CATEGORY	A	B	C	D
LNAV MDA	1380-1	389 (400-1)	NA	
CIRCLING	1440-1 448 (500-1)	1460-1 468 (500-1)	NA	



NC-1. 03 JUN 2010 to 01 JUL 2010

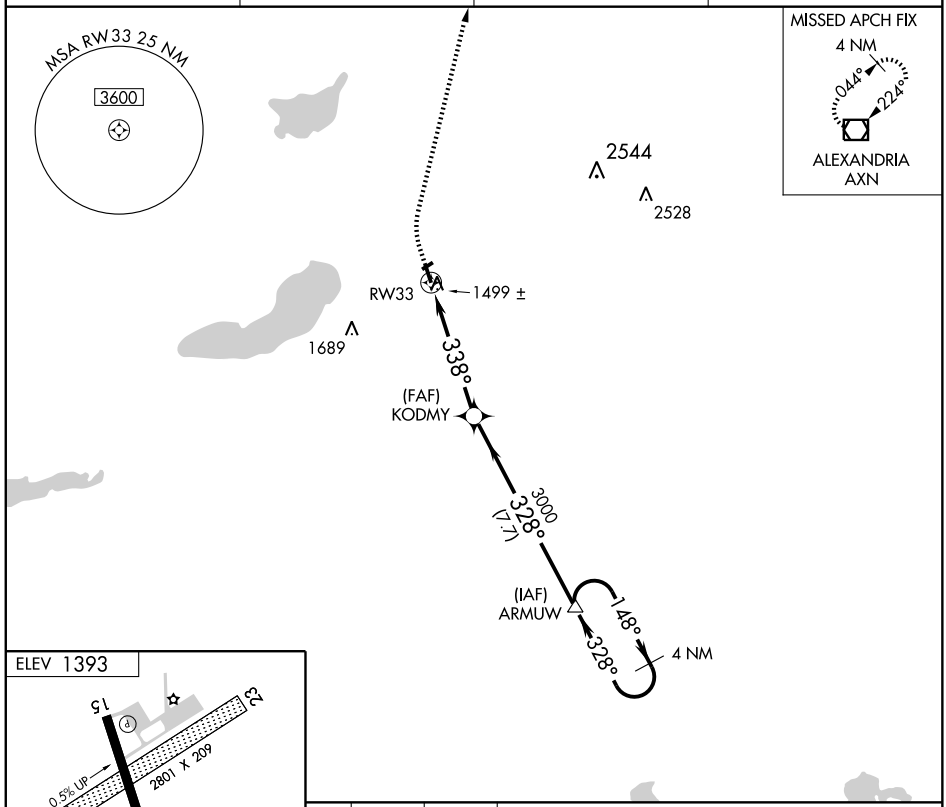
APP CRS	Rwy Idg	4500
338°	TDZE	1388
	Apt Elev	1393

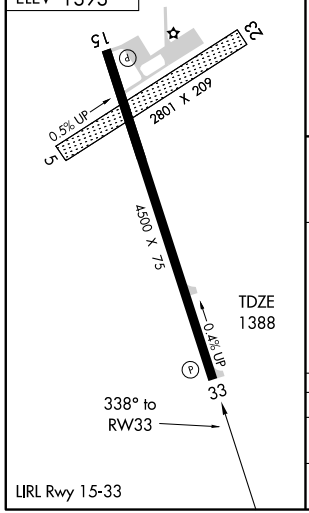
GPS RWY 33
GLENWOOD MUNI (GHW)

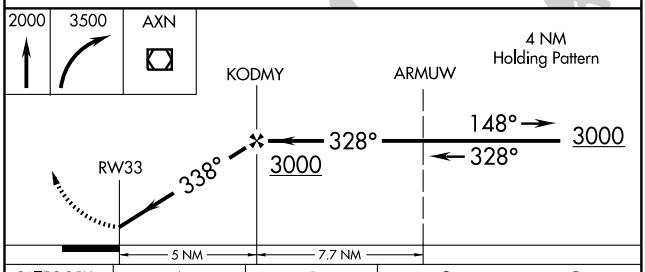
NA

MISSED APPROACH: Climb to 2000, then climbing right turn to 3500 direct AXN VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
346	126.1 269.2	121.725	122.9







CATEGORY	A	B	C	D
S-33	1760-1 372 (400-1)			NA
CIRCLING	1820-1 427 (500-1)	1860-1 467 (500-1)	1860-1½ 467 (500-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

GLENWOOD, MINNESOTA

AL-6556 (FAA)

VOR/DME AXN	APP CRS	Rwy Idg	4500
112.8	003°	TDZE	1388
Chan 75		Apt Elev	1393

VOR RWY 33

GLENWOOD MUNI (GHW)

NA

MISSED APPROACH: Climb to 2000, then climbing right turn to 3000 via AXN R-183 to MONKE Int/25 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
346	126.1 269.2	121.725	122.9

ALEXANDRIA
112.8 AXN
Chan 75

3000 to MONKE
183° (25)

112.8 AXN
Chan 75

MSA AXN 25 NM
3600

2544

2528

R-183

MORRIS
109.6 MOX
Chan 33

1689

(IAF)
MONKE INT
AXN 25

003°

3000
087°
(26.7)

R-087

183°

003°
1 min

R-141

(IAF)

3000
003° (5)

AXN
30

3000 NoPT
AXN 30 Arc

R-183

10 NM

ELEV 1393

15

33

2801 X 209

0.5% UP

4500 X 75

0.4% UP

TDZE
1388

003° 5.4 NM
from FAF

LIRL Rwy 15-33

One Minute
Holding Pattern

MONKE INT
AXN 25

3000

183°

003°

003°

5.4 NM

2000	3000	MONKE INT
	AXN R-183	

CATEGORY	A	B	C	D
S-33	1880-1	492 (500-1)	1880-1¼ 492 (500-1¼)	NA
CIRCLING	1880-1	487 (500-1)	1880-1½ 487 (500-1½)	NA

FAF to MAP 5.4 NM

Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB CKC	APP CRS		
358	285°	Rwy Idg	4199
		TDZE	1797
		Apt Elev	1799

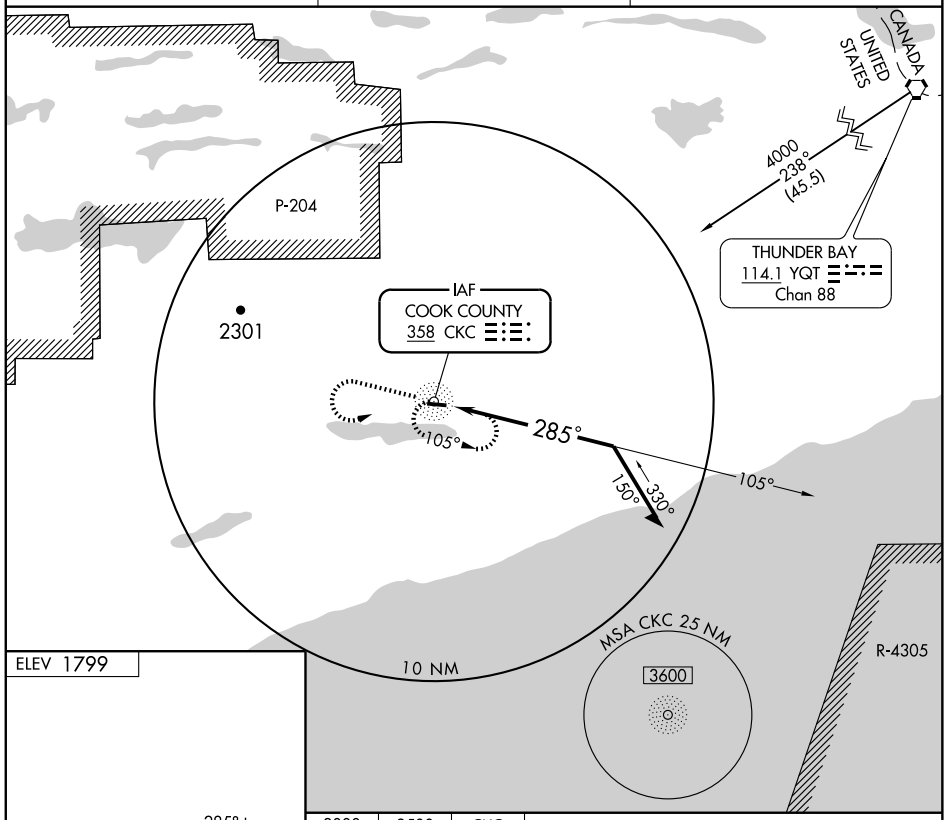
NDB RWY 27

GRAND MARAIS/COOK COUNTY (CKC)

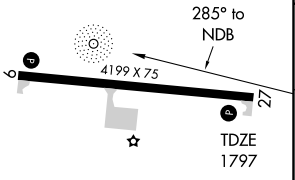
NA

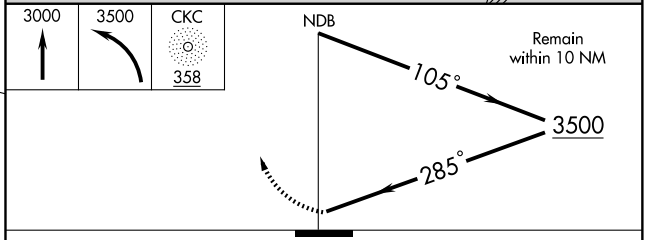
MISSED APPROACH: Climb to 3000, then climbing left turn to 3500 direct CKC NDB and hold.

AWOS-3	PRINCETON RADIO	UNICOM
119.925	122.3	122.8 (CTAF) L



ELEV 1799





CATEGORY	A	B	C	D
S-27	2340-1	543 (600-1)	2340-1½ 543 (600-1½)	NA
CIRCLING	2340-1	541 (600-1)	2340-1½ 541 (600-1½)	NA

MIRL Rwy 9-27 L
REIL Rwys 9 and 27 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4199
276°	TDZE	1797
	Apt Elev	1799

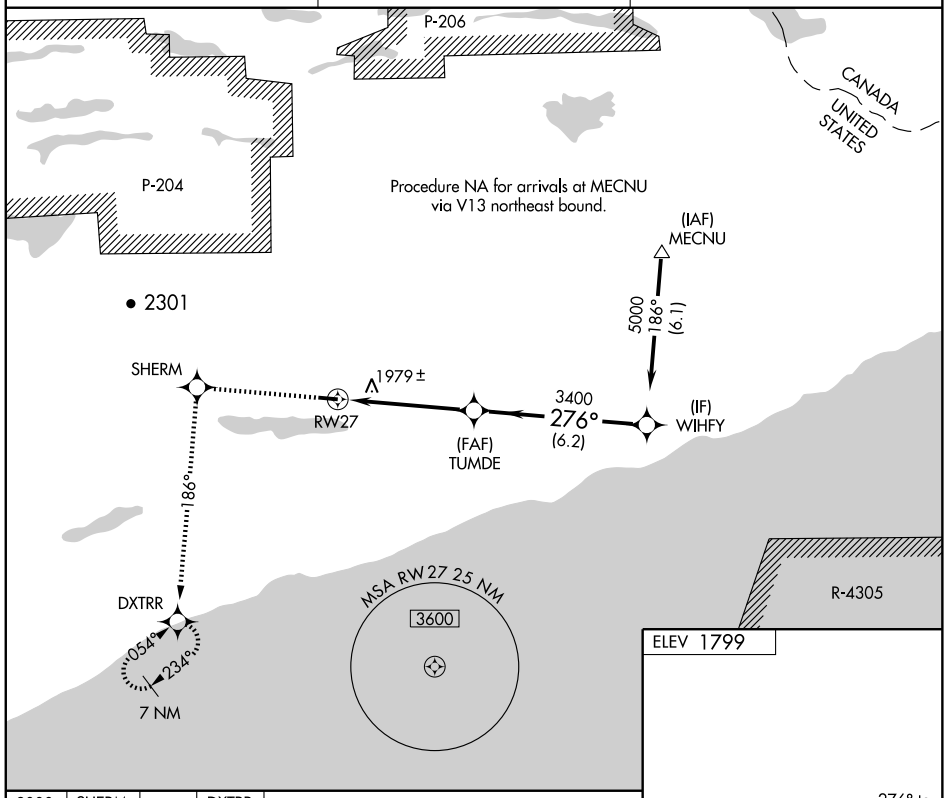
RNAV (GPS) RWY 27

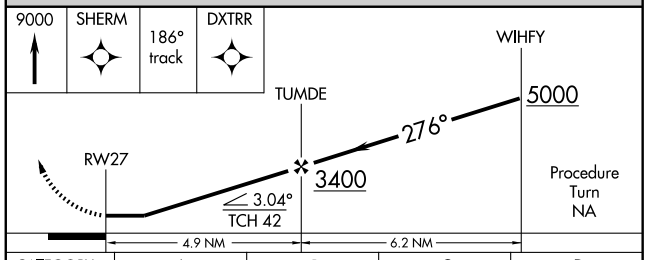
GRAND MARAIS/COOK COUNTY (CKC)

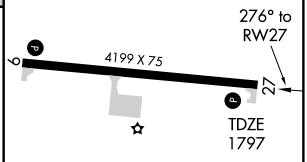
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Ely altimeter setting and increase all MDA 200 feet, increase LNAV Cat C visibility ½ mile, circling Cat B visibility ¼ mile, and circling Cat C visibility ¾ mile.

MISSED APPROACH: Climb to 9000 direct SHERM and via 186° track to DXTRR and hold, continue climb-in-hold to 9000.

AWOS-3	PRINCETON RADIO	UNICOM
119.925	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	2240-1 443 (500-1)		2240-1¼ 443 (500-1¼)	NA
CIRCLING	2340-1 541 (600-1)		2340-1½ 541 (600-1½)	NA

MIRL Rwy 9-27 L
REIL Rwys 9 and 27 L

NC-1, 03 JUN 2010 to 01 JUL 2010

GRAND RAPIDS, MINNESOTA

AL-5258 (FAA)

LOC I-GPZ	APP CRS	Rwy Idg	5755
110.1	344°	TDZE	1355
		Apt Elev	1355

ILS RWY 34

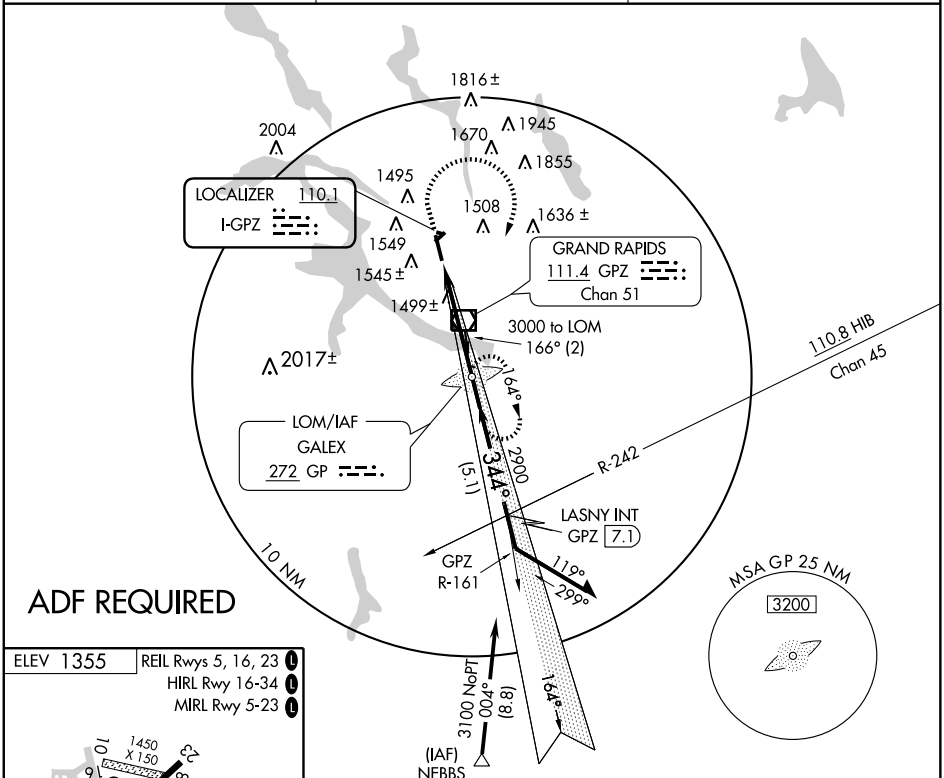
GRAND RAPIDS/ ITASCA COUNTY-GORDON NEWSTROM FIELD (GPZ)

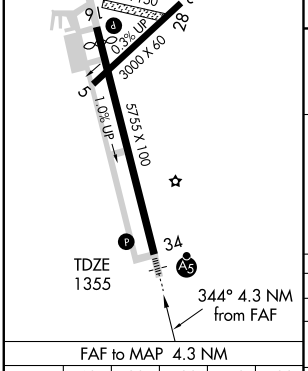
Circling not authorized at night to Rwys 10-28 and 5-23.

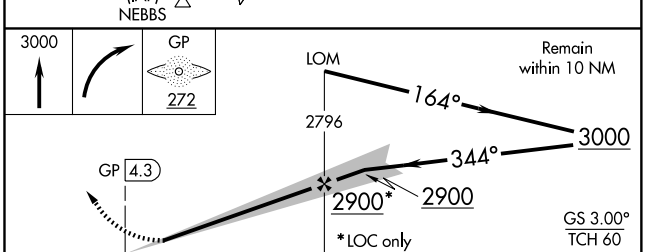
MALSR

MISSED APPROACH: Climb to 3000, then right turn direct GALEX LOM and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.425	127.9 281.45	122.8 (CTAF) L







FAF to MAP 4.3 NM					
Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

CATEGORY	A	B	C	D
S-ILS 34	1555-½ 200 (200-½)			
S-LOC 34	1760-½ 405 (500-½)		1760-¾ 405 (500-¾)	1760-1 405 (500-1)
CIRCLING	1860-1 505 (600-1)	1900-1 545 (600-1)	1900-1½ 545 (600-1½)	1920-2 565 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	5332
164°	TDZE	1332
	Apt Elev	1355

RNAV (GPS) RWY 16

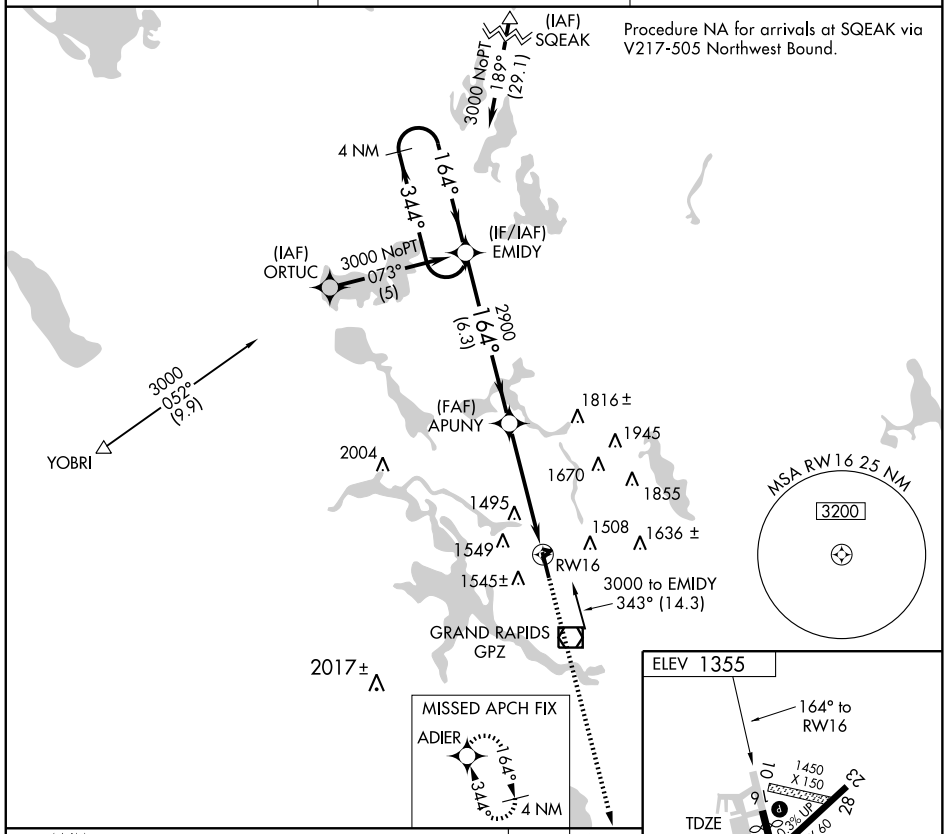
GRAND RAPIDS/ITASCA COUNTY-GORDON NEWSTROM FIELD (GPZ)

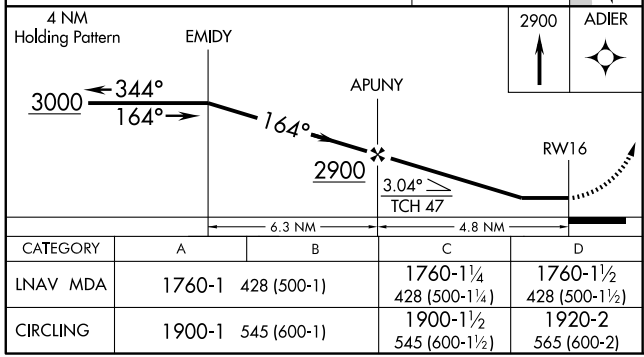
Circling to Rwy 10-28 and 5-23 NA at night. DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Hibbings altimeter setting and increase all MDA 80 feet and increase LNAV and Circling Cat. C visibility ¼ mile.

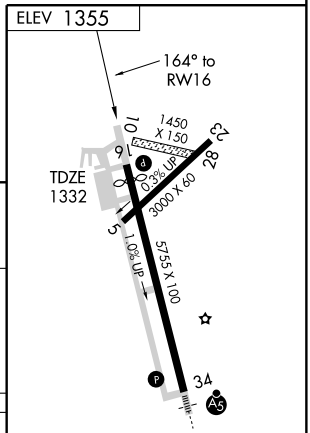
MISSED APPROACH: Climb to 2900 direct ADIER and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.425	127.9 281.45	122.8 (CTAF) L

Procedure NA for arrivals at SQEAK via V217-505 Northwest Bound.







CATEGORY	A	B	C	D
LNAV MDA	1760-1	428 (500-1)	1760-1¼ 428 (500-1¼)	1760-1½ 428 (500-1½)
CIRCLING	1900-1	545 (600-1)	1900-1½ 545 (600-1½)	1920-2 565 (600-2)

MIRL Rwy 5-23 L
HIRL Rwy 16-34 L
REIL Rwys 5, 16, 23 L

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	5755
CH 86412	344°	TDZE	1355
W34A		Apt Elev	1355

GRAND RAPIDS/ ITASCA COUNTY-GORDON NEWSTROM FIELD (GPZ)

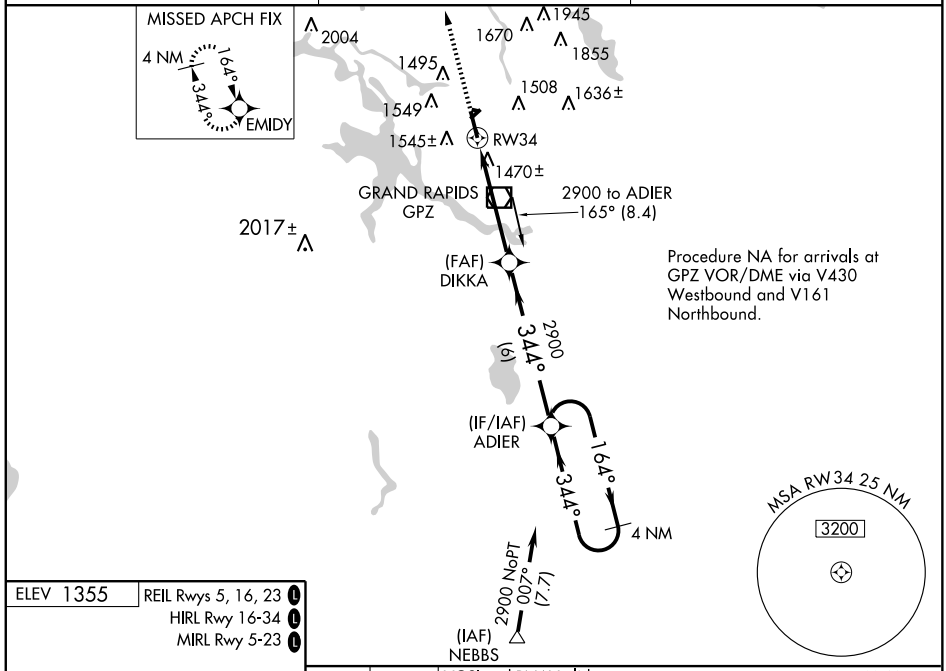
RNAV (GPS) RWY 34

T A Circling to Rwy 10-28 and 5-23 NA at night. For inoperative MALSR when using KHB altimeter setting, increase LPV all Cats. visibility to 1 mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Baro-VNAV and VDP NA when using Hibbings altimeter setting. When local altimeter setting not received, use Hibbings altimeter setting and increase all DA 68 feet and all MDA 80 feet, increase LNAV/VNAV all Cats., LNAV Cat. D, and Circling Cat. C visiblity ¼ mile.

MALSR

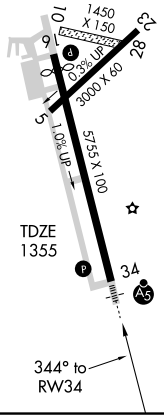
MISSED APPROACH: Climb to 3000 direct EMIDY and hold.

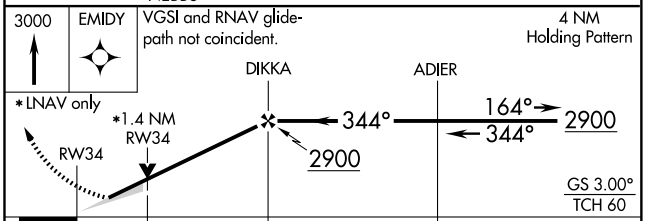
AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.425	127.9 281.45	122.8 (CTAF) L



ELEV 1355

REIL Rwys 5, 16, 23 L
HIRL Rwy 16-34 L
MIRL Rwy 5-23 L





CATEGORY	A	B	C	D
LPV DA	1555-½ 200 (200-½)			
LNAV/ VNAV DA	1747-¾ 392 (400-¾)			
LNAV MDA	1860-½ 505 (600-½)		1860-1 505 (600-1)	
CIRCLING	1900-1 545 (600-1)		1900-1½ 545 (600-1½)	1920-2 565 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME GPZ	APP CRS		
111.4	334°	Rwy Idg	5755
Chan 51		TDZE	1355
		Apt Elev	1355

VOR RWY 34

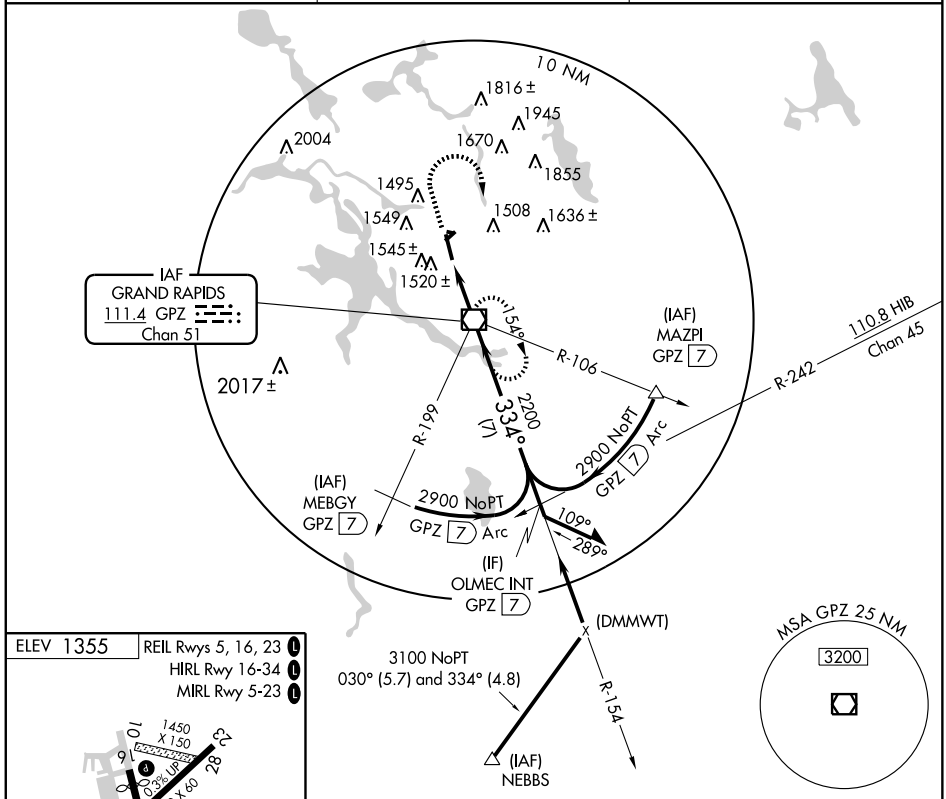
GRAND RAPIDS/ ITASCA COUNTY-GORDON NEWSTROM FIELD (GPZ)

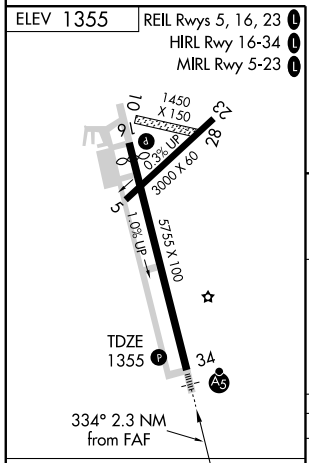
Circling to Rwy 10-28 and 5-23 NA at night. When local altimeter setting not received, use Hibbings altimeter setting and increase all MDA 80 feet, increase S-34 Cat. C and D and Circling Cat C visibility ¼ mile. VDP NA when using Hibbings altimeter setting.

MALSR

MISSED APPROACH: Climb to 3000 then right turn direct GPZ VOR/DME and hold.

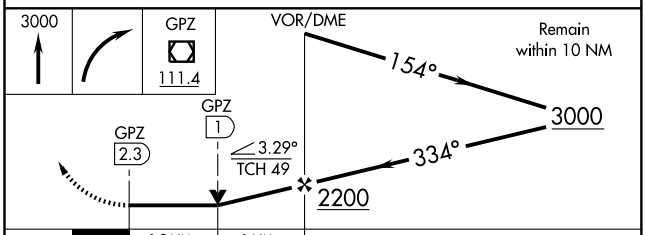
AWOS-3	MINNEAPOLIS CENTER	UNICOM
118.425	127.9 281.45	122.8 (CTAF) L





FAF to MAP 2.3 NM

Knots	60	90	120	150	180
Min:Sec	2:18	1:32	1:09	0:55	0:46



CATEGORY	A	B	C	D
S-34	1800-½ 445 (500-½)		1800-¾ 445 (500-¾)	1800-1 445 (500-1)
CIRCLING	1900-1 545 (600-1)		1900-1½ 545 (600-1½)	1920-2 565 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS		
333°	Rwy Idg	3700
	TDZE	1045
	Apt Elev	1047

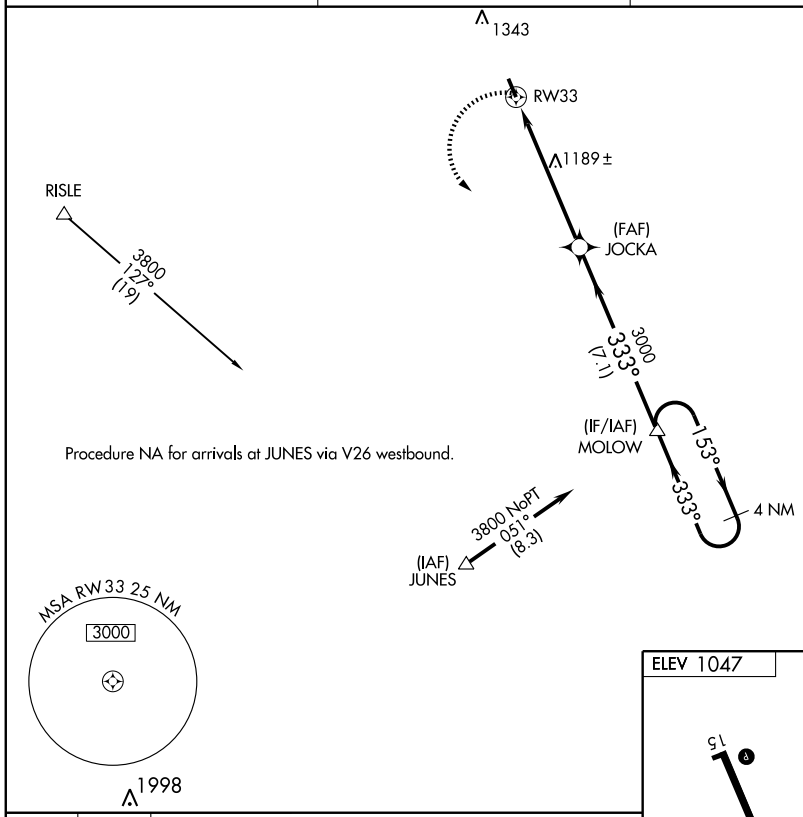
RNAV (GPS) RWY 33

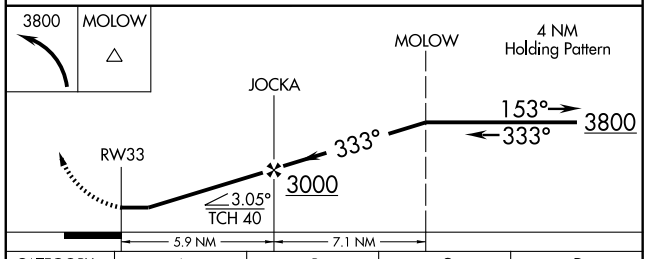
GRANITE FALLS MUNI/ LENZEN-ROE MEMORIAL FIELD (GDB)

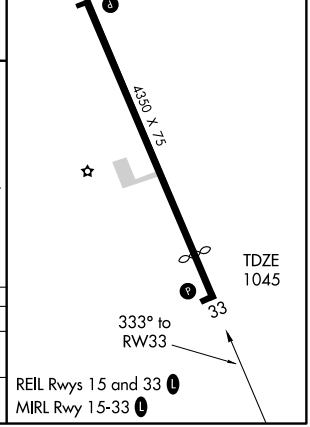
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Montevideo altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climbing left turn to 3800 direct MOLOW and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
120.1	127.1 290.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1480-1 435 (500-1)		1480-1¼ 435 (500-1¼)	1480-1½ 435 (500-1½)
CIRCLING	1480-1 433 (500-1)	1500-1 453 (500-1)	1500-1½ 453 (500-1½)	1600-2 553 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME MVE	APP CRS	Rwy Idg	3700
111.6	328°	TDZE	1045
Chan 53		Apt Elev	1047

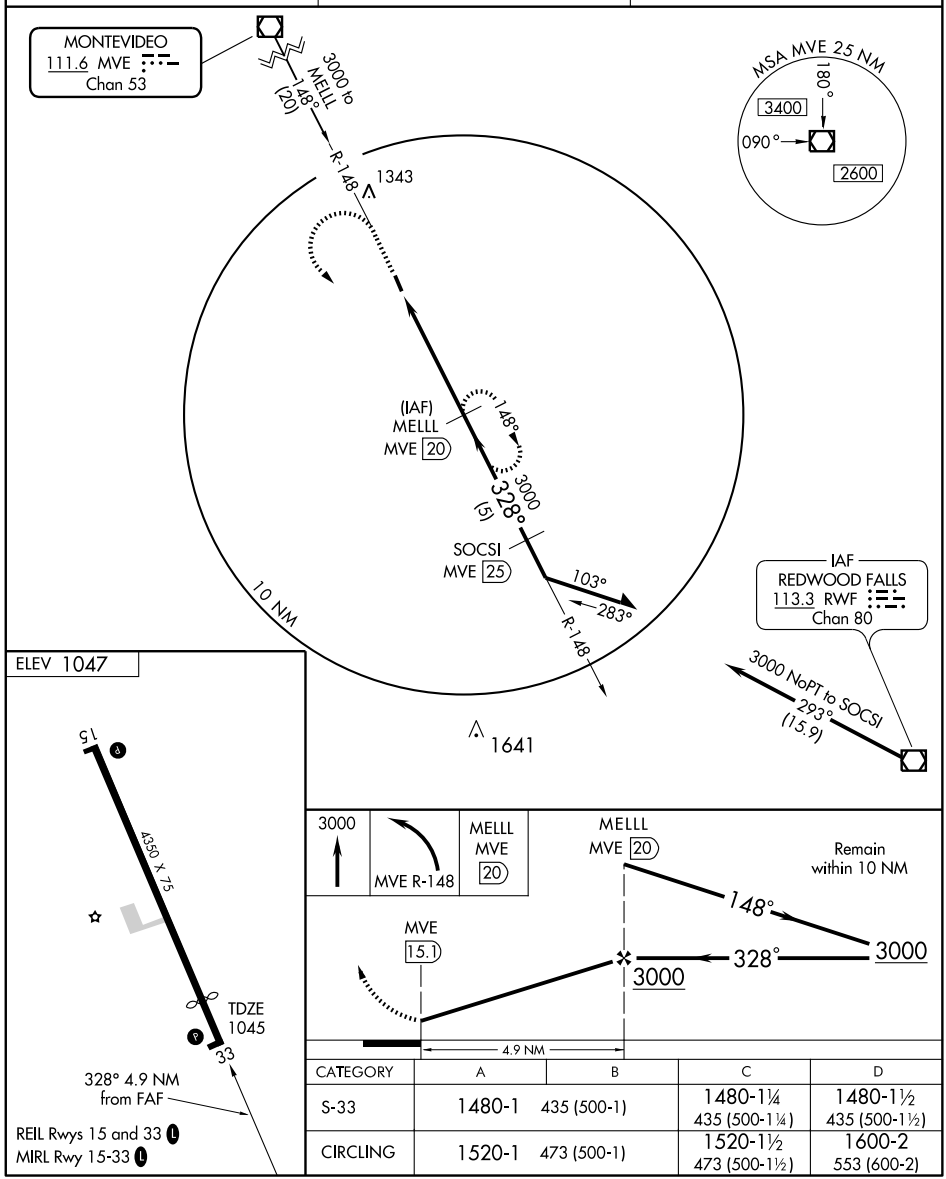
VOR/DME RWY 33

GRANITE FALLS MUNI/LENZEN-ROE MEMORIAL FIELD (GDB)

T
NA When local altimeter setting not received, use Montevideo altimeter setting.

MISSED APPROACH: Climb to 3000, then left turn via R-148 to MELLL/MVE 20 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
120.1	127.1 290.2	122.8 (CTAF) L



CATEGORY	A	B	C	D
S-33	1480-1	435 (500-1)	1480-1¼ 435 (500-1¼)	1480-1½ 435 (500-1½)
CIRCLING	1520-1	473 (500-1)	1520-1½ 473 (500-1½)	1600-2 553 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

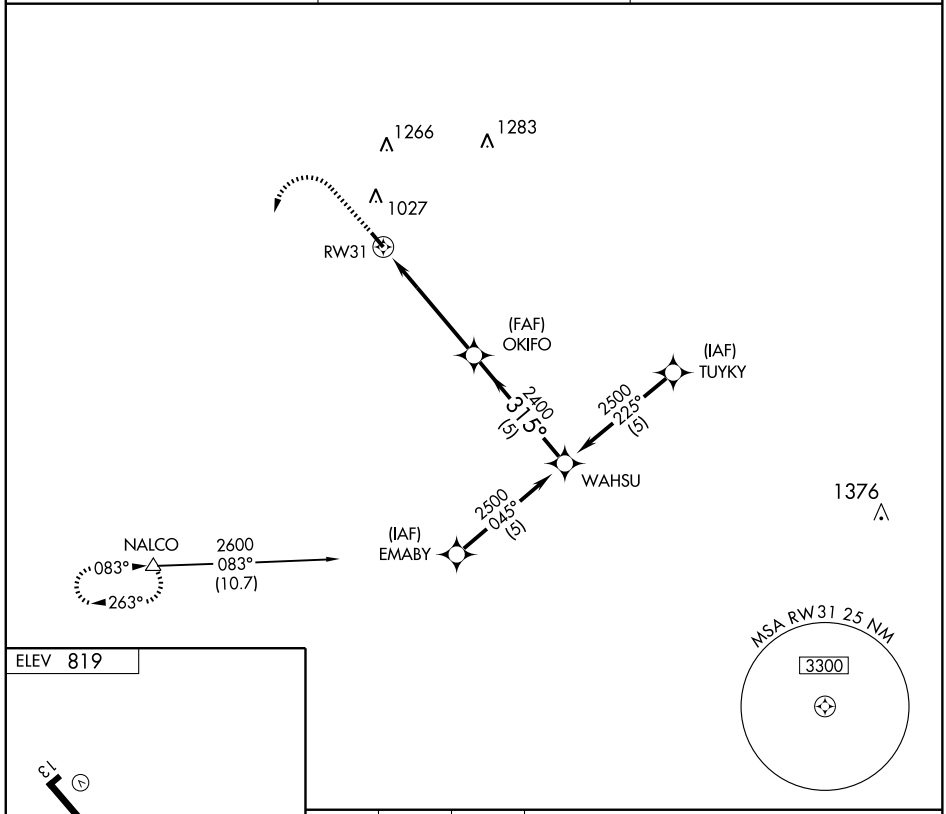
APP CRS	Rwy Idg	4007
315°	TDZE	819
	Apt Elev	819

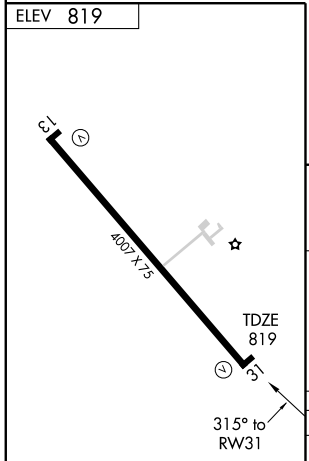
GPS RWY 31
HALLOCK MUNI (HCO)

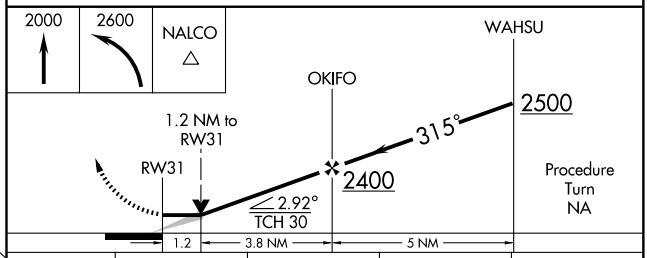
NA

MISSED APPROACH: Climb to 2000 then climbing left turn to 2600 direct NALCO WP and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
126.475	132.15 269.6	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-31	1220-1 401 (500-1)		1220-1¼ 401 (500-1¼)	
CIRCLING	1380-1 561 (600-1)		1380-1½ 561 (600-1½)	1380-2 561 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

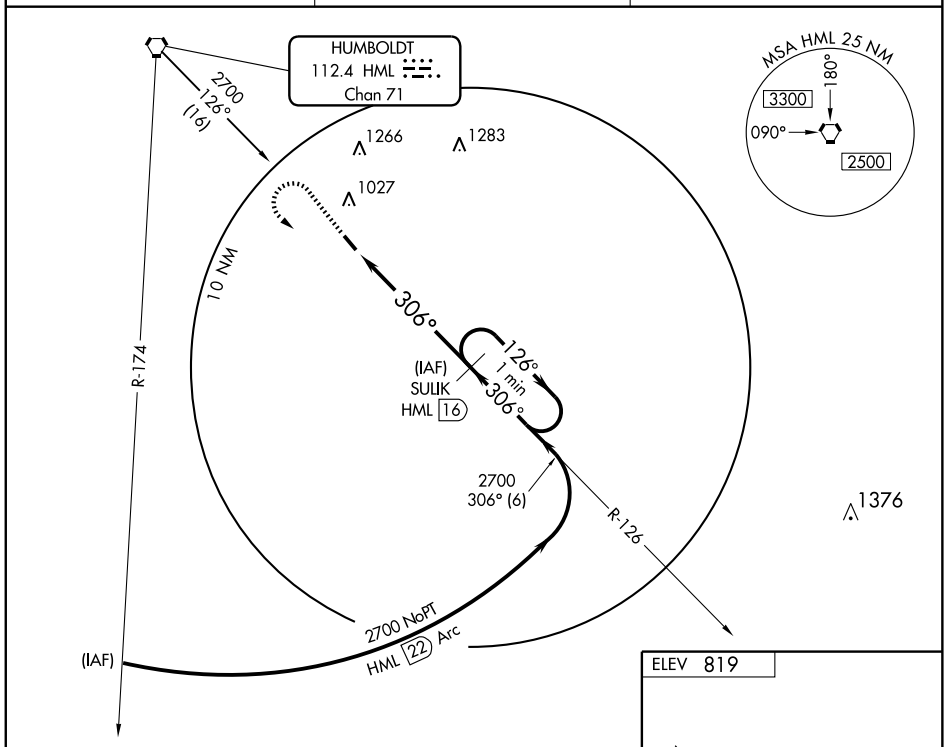
VORTAC HML	APP CRS	Rwy Idg	4007
112.4	306°	TDZE	819
Chan 71		Apt Elev	819

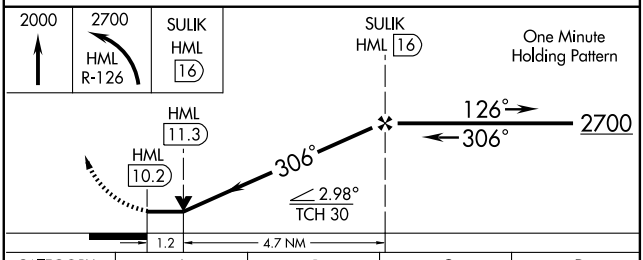
VOR/DME RWY 31
HALLOCK MUNI (HCO)

NA

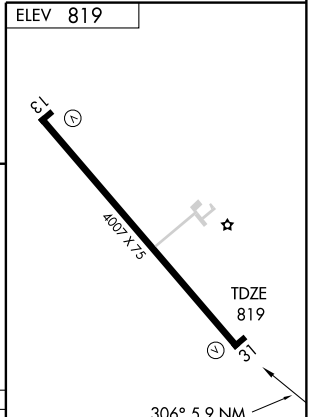
MISSED APPROACH: Climb to 2000 then climbing left turn to 2700 via HML R-126 to SULIK and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
126.475	132.15 269.6	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-31	1220-1 401 (500-1)		1220-1¼ 401 (500-1¼)	
CIRCLING	1380-1 561 (600-1)		1380-1½ 561 (600-1½)	1380-2 561 (600-2)



REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3404
336°	TDZE	1205
	Apt Elev	1209

RNAV (GPS) RWY 34

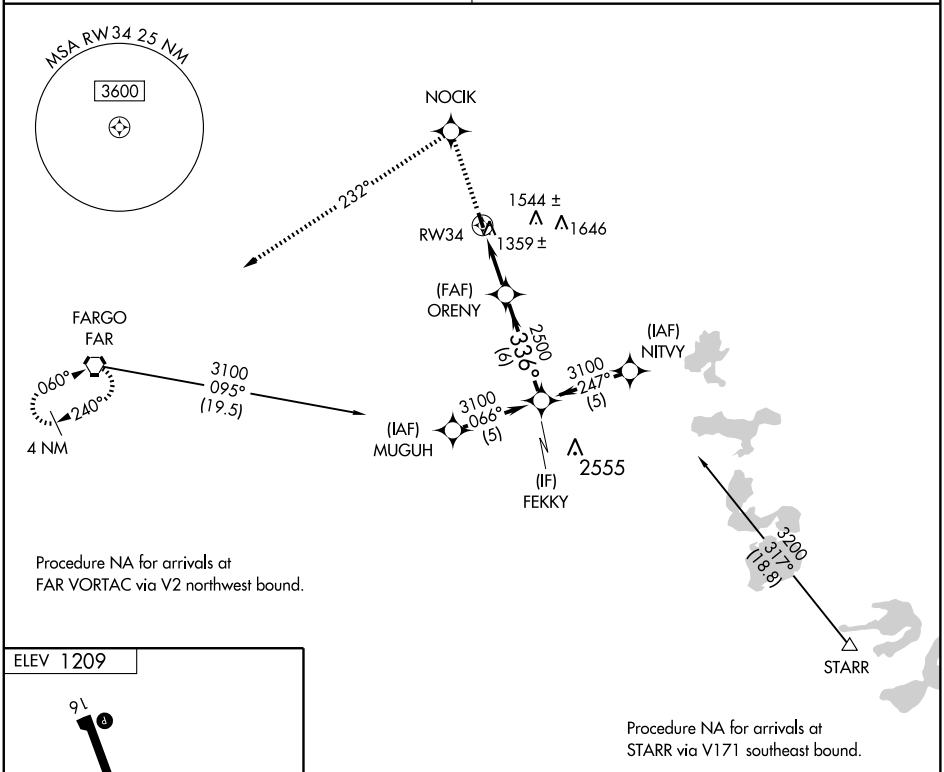
HAWLEY MUNI (Ø4Y)

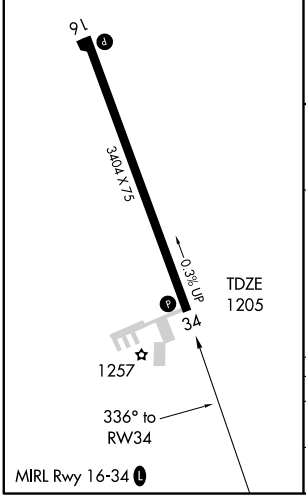
Use Fargo, ND altimeter setting.
NA DME/DME RNP-0.3 NA.

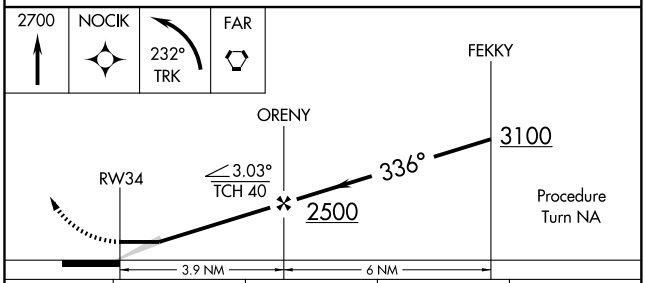
MISSED APPROACH: Climb to 2700 direct NOCIK and left turn via 232° track to FAR VORTAC and hold.

FARGO APP CON ★
120.4 377.15

UNICOM
122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1700-1	495 (500-1)	1700-1¼ 495 (500-1¼)	NA
CIRCLING	1760-1	551 (600-1)	1760-1½ 551 (600-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

VORTAC FAR	APP CRS	Rwy Idg	N/A
116.2	060°	TDZE	N/A
Chan 109		Apt Elev	1209

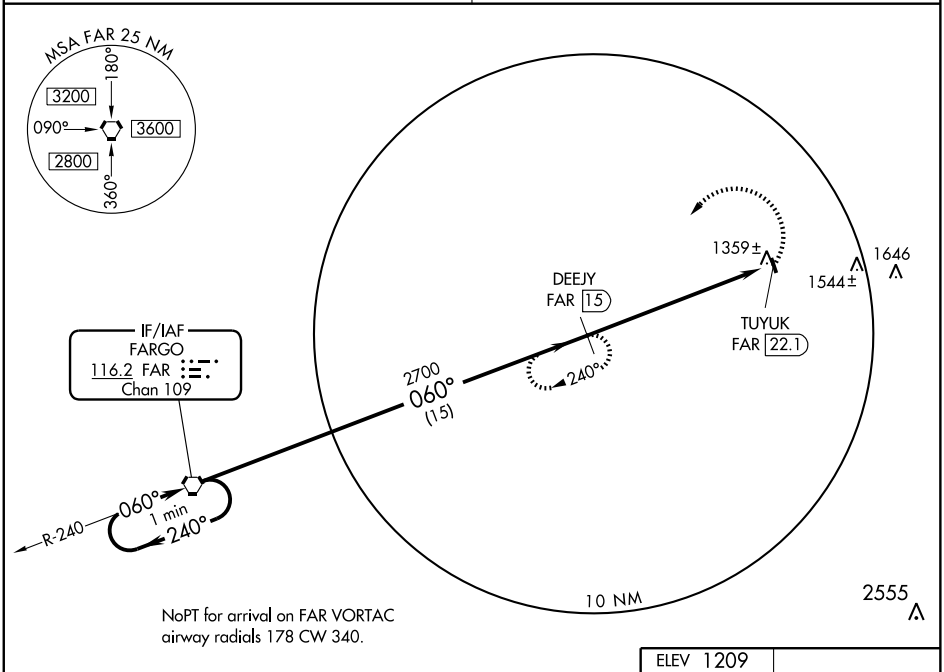
VOR/DME-A
HAWLEY MUNI (Ø4Y)

NA — Use Fargo, ND altimeter setting.

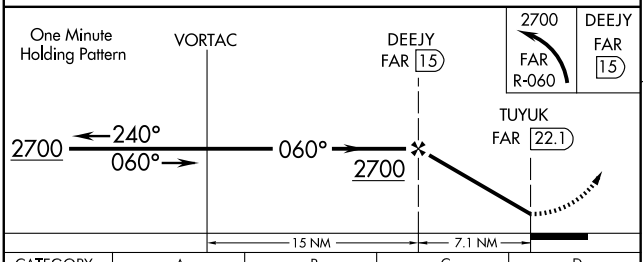
MISSED APPROACH: Climbing left turn to 2700 via FAR R-060 to DEEJY/15 DME and hold.

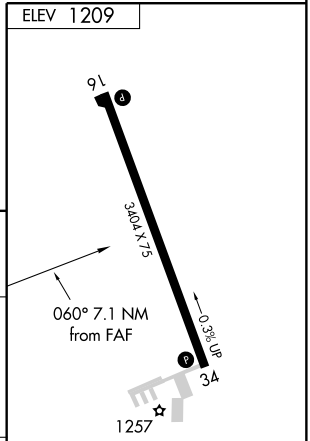
FARGO APP CON ★ 120.4 377.15

UNICOM 122.8 (CTAF) L



NoPT for arrival on FAR VORTAC airway radials 178 CW 340.





CATEGORY	A	B	C	D
CIRCLING	1760-1 551 (600-1)	1760-1¼ 551 (600-1¼)	1760-1½ 551 (600-1½)	NA

MIRL Rwy 16-34 L

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-JAE	APP CRS	Rwy Idg	6760
110.5	130°	TDZE	1353
		Apt Elev	1353

ILS or LOC/DME RWY 13

HIBBING/ RANGE RGNL (HIB)

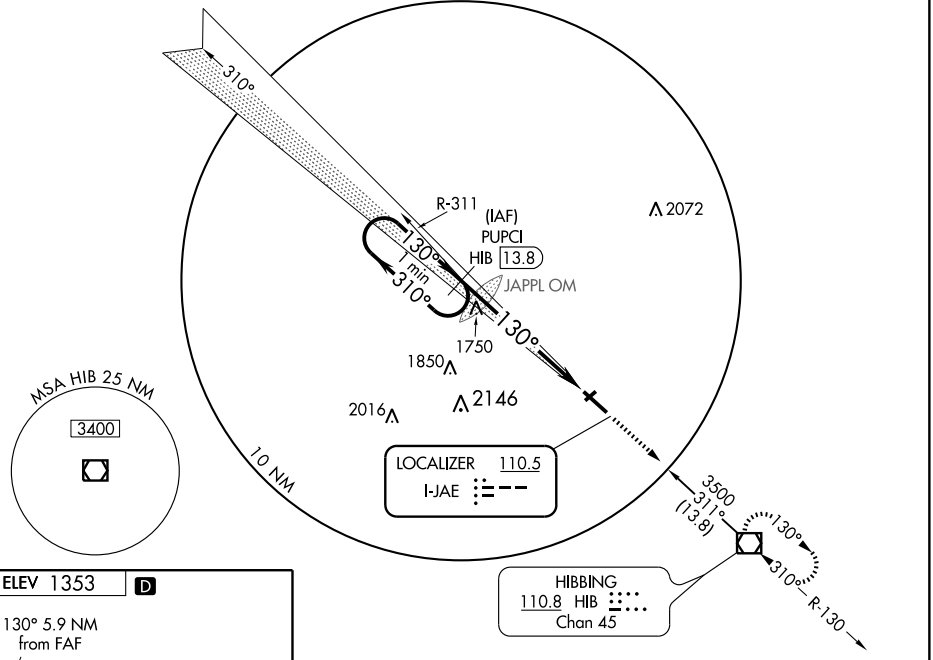
Autopilot couple approach NA below 2388.

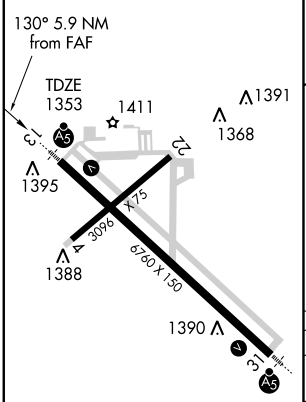
MALSR

MISSED APPROACH: Climb to 3600 direct HIB VOR/DME and hold.

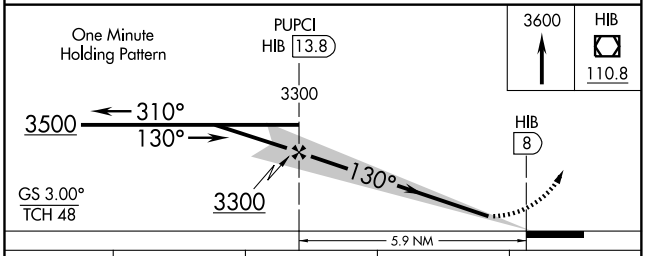
ASOS	DULUTH APP CON★	CLNC DEL	UNICOM
126.425	125.45 255.9	127.4	123.0 (CTAF) L

DME REQUIRED





HIRL Rwy 13-31 L



CATEGORY	A	B	C	D
S-ILS 13	1553-½ 200 (200-½)			
S-LOC 13	2060-½ 707 (800-½)		2060-1½ 707 (800-1½)	2060-1¾ 707 (800-1¾)
CIRCLING	2060-1 707 (800-1)		2060-1½ 707 (800-1½)	2060-2 707 (800-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-HIB	APP CRS	Rwy Idg	6760
109.5	310°	TDZE	1343
		Apt Elev	1353

ILS or LOC RWY 31

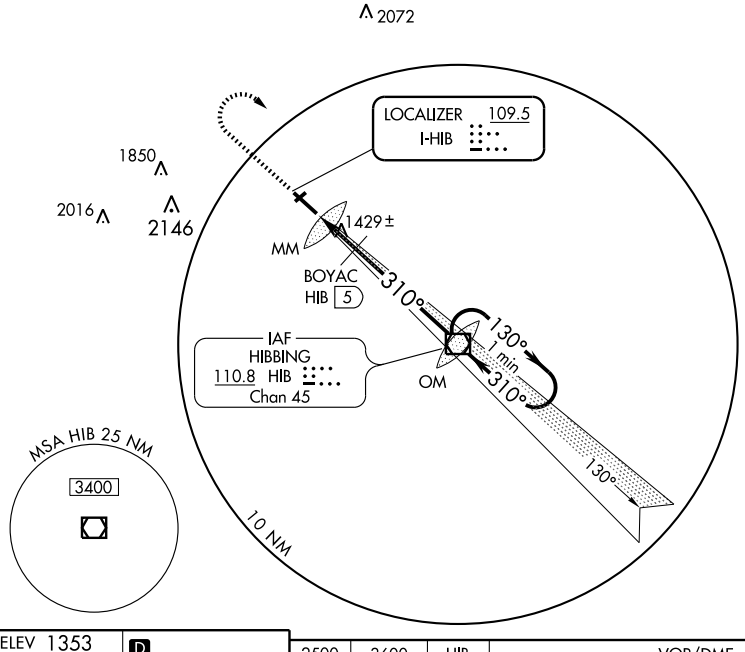
HIBBING/ RANGE RGNL (HIB)

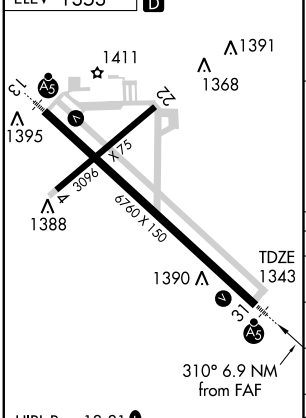
For inoperative MALSR, increase BOYAC FIX MINIMUMS S-LOC 31 Category D visibility to 1. #DME from HIB VOR/DME.

MALSR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3600 direct HIB VOR/DME and hold.

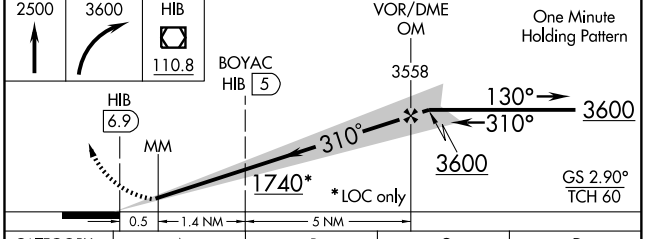
ASOS	DULUTH APP CON*	CLNC DEL	UNICOM
126.425	125.45 255.9	127.4	123.0 (CTAF) L





HIRL Rwy 13-31 L

FAF to MAP 6.9 NM					
Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:27	2:46	2:18



CATEGORY	A	B	C	D
S-ILS 31	1543-½ 200 (200-½)			
S-LOC 31	1740-½ 397 (400-½)			1740-¾ 397 (400-¾)
CIRCLING	1820-1 467 (500-1)	1840-1 487 (500-1)	1840-1½ 487 (500-1½)	1920-2 567 (600-2)
# BOYAC FIX MINIMUMS				
S-LOC 31	1680-½ 337 (400-½)			1680-¾ 337 (400-¾)
CIRCLING	1820-1 467 (500-1)	1840-1 487 (500-1)	1840-1½ 487 (500-1½)	1920-2 567 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3096
047°	TDZE	1350
	Apt Elev	1353

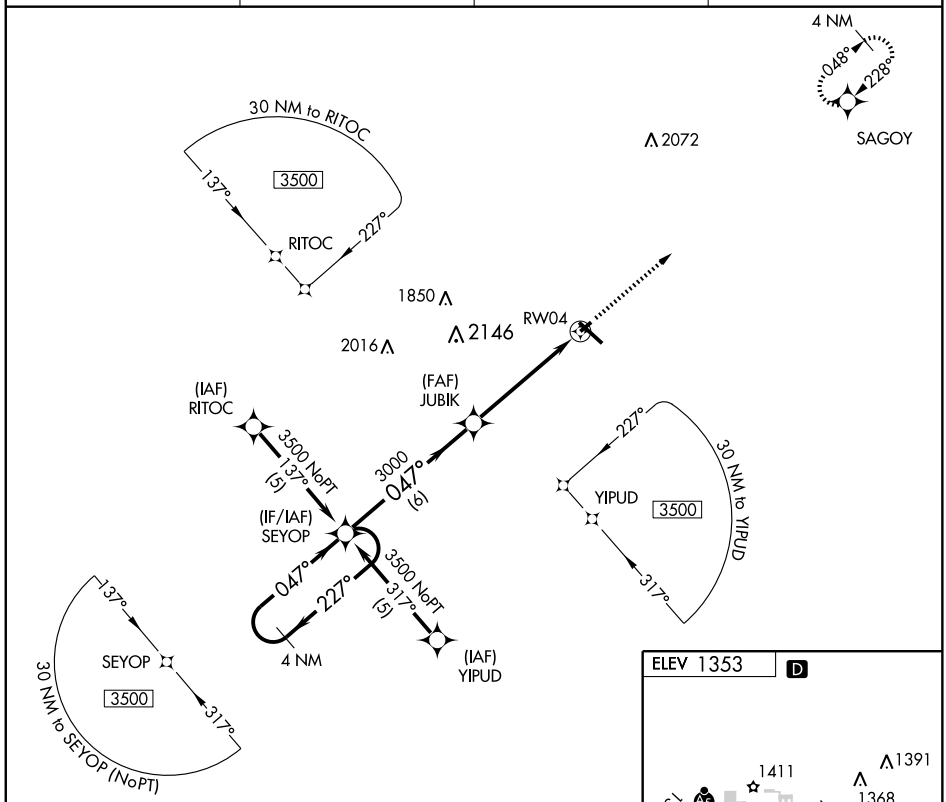
RNAV (GPS) RWY 4

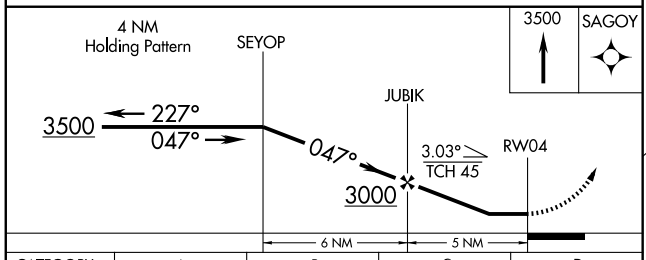
HIBBING/ RANGE RGNL (HIB)

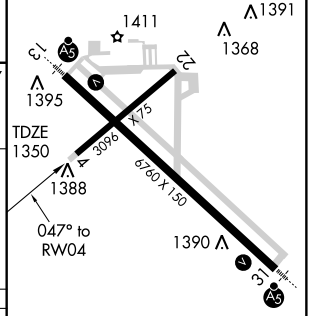
Procedure not authorized at night.
NA GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3500 direct SAGOY WP and hold.

ASOS	DULUTH APP CON★	CLNC DEL	UNICOM
126.425	125.45 255.9	127.4	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1780-1	430 (500-1)	NA	
CIRCLING	1820-1 467 (500-1)	1840-1 487 (500-1)	NA	

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	6760
130°	TDZE	1353
	Apt Elev	1353

RNAV (GPS) RWY 13

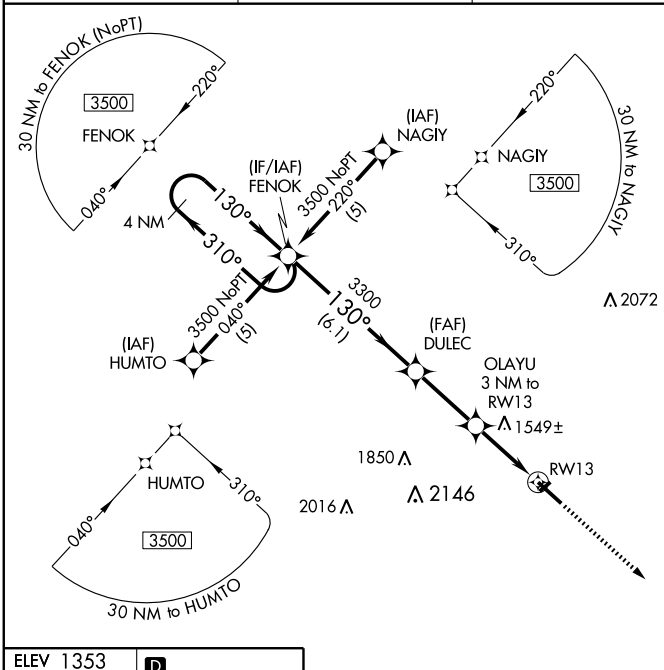
HIBBING/ RANGE RGNL (HIB)

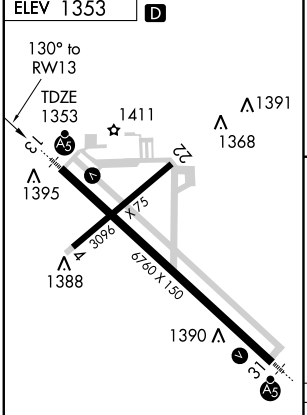
T NA — Circling not authorized at night to Rwy 4-22. GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. For inoperative MALSR, increase LNAV MDA Cat. A and B to 1 mile.

MALSR

MISSED APPROACH: Climb to 3500 direct CEKSA WP and hold.

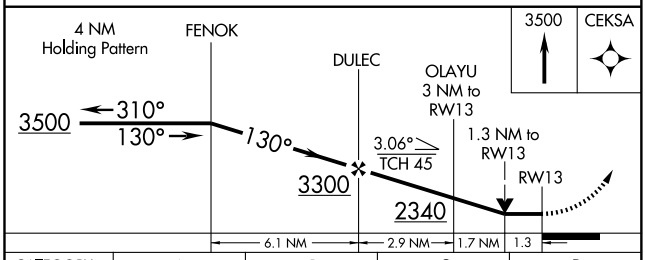
ASOS	DULUTH APP CON★	CLNC DEL	UNICOM
126.425	125.45 255.9	127.4	123.0 (CTAF) L





HIRL Rwy 13-31 L





CATEGORY	A	B	C	D
LNAV MDA	1800-¾ 447 (500-¾)			1800-1 447 (500-1)
CIRCLING	1820-1 467 (500-1)	1840-1 487 (500-1)	1840-1½ 487 (500-1½)	1920-2 567 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3096
227°	TDZE	1350
	Apt Elev	1353

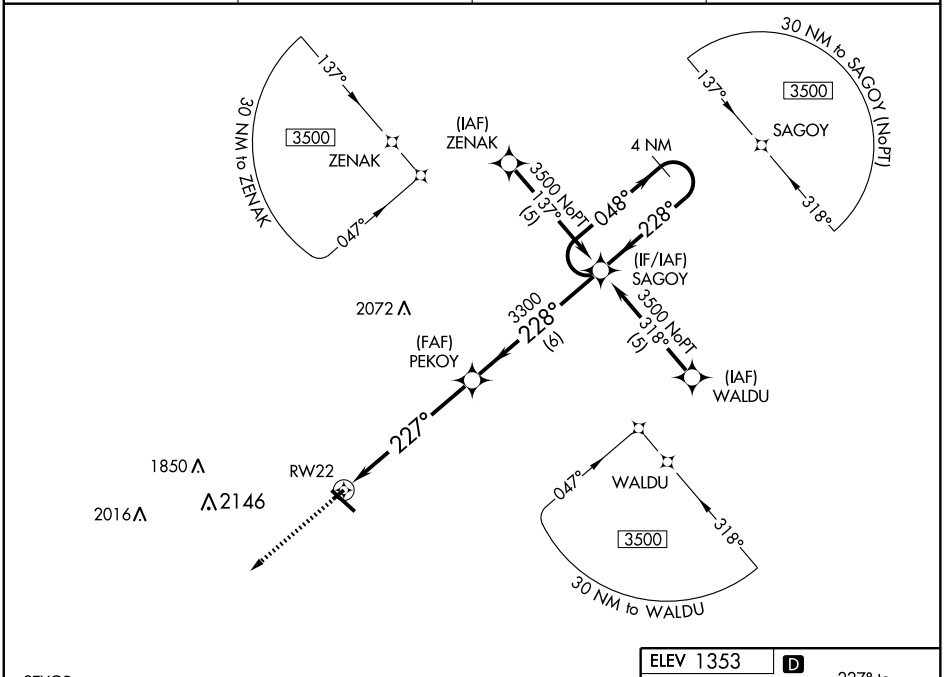
RNAV (GPS) RWY 22

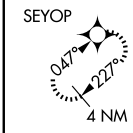
HIBBING/ RANGE RGNL (HIB)

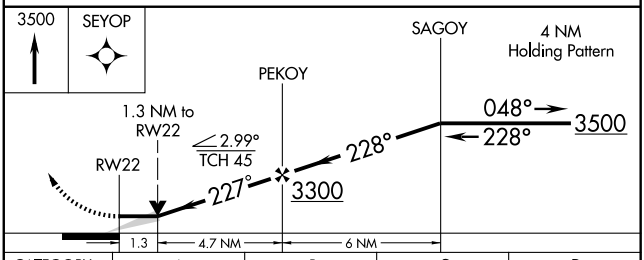
Procedure not authorized at night.
NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 3500 direct SEYOP WP and hold.

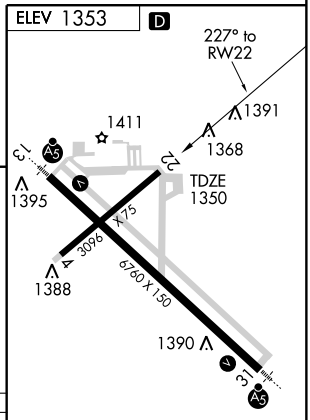
ASOS	DULUTH APP CON*	CLNC DEL	UNICOM
126.425	125.45 255.9	127.4	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1800-1	450 (500-1)	NA	
CIRCLING	1820-1 467 (500-1)	1840-1 487 (500-1)	NA	



HIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	6760
310°	TDZE	1343
	Apt Elev	1353

RNAV (GPS) RWY 31

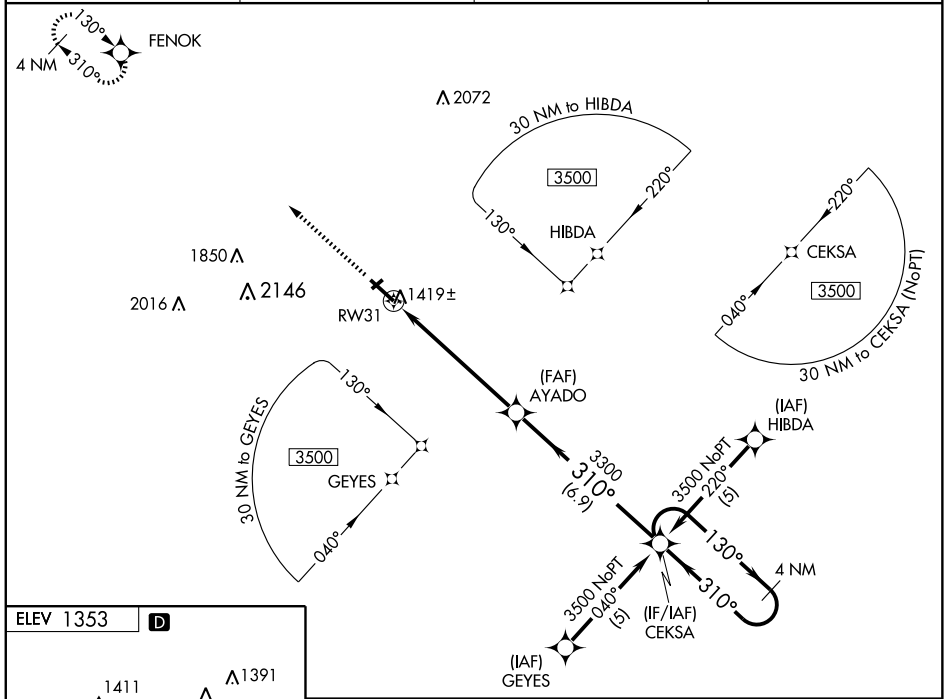
HIBBING/ RANGE RGNL (HIB)

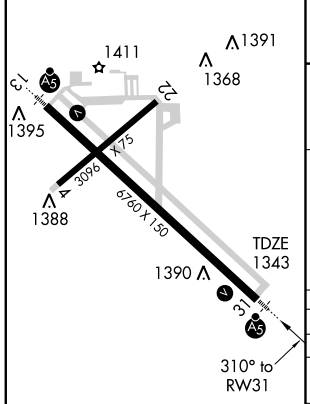
T
NA
Circling not authorized at night to Rwy 4-22.
Baro-VNAV NA below -17°C (2°F).
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.
For inoperative MALSR, increase LNAV Cat. A/B/C visibility to 1 mile.
Inoperative table does not apply to LNAV Cat. D.

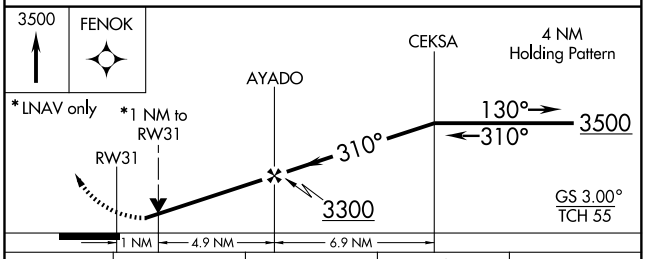
MALSR (A5)

MISSED APPROACH: Climb to 3500 direct FENOK WP and hold.

ASOS	DULUTH APP CON *	CLNC DEL	UNICOM
126.425	125.45 255.9	127.4	123.0 (CTAF) L







CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/ VNAV DA	1700-¾ 357 (400-¾)			
LNAV MDA	1700-¾ 357 (400-¾)			1700-1 357 (400-1)
CIRCLING	1820-1¼ 467 (500-1¼)	1840-1¼ 487 (500-1¼)	1840-1½ 487 (500-1½)	1920-2 567 (600-2)

HIRL Rwy 13-31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME HIB	APP CRS	Rwy Idg	6760
110.8	131°	TDZE	1353
Chan 45		Apt Elev	1353

VOR RWY 13

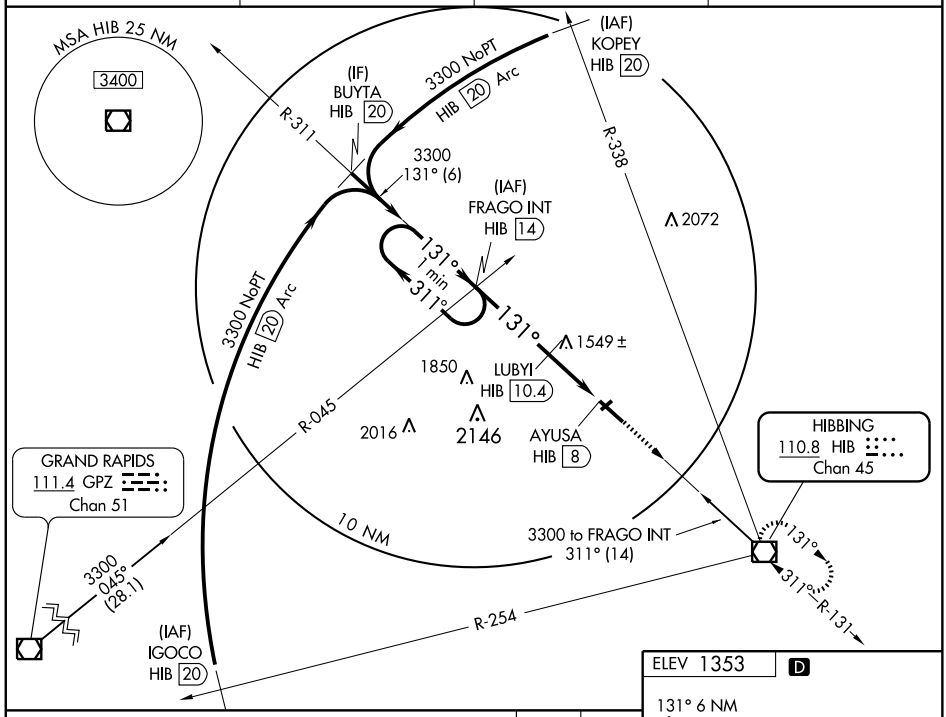
HIBBING/ RANGE RGNL (HIB)

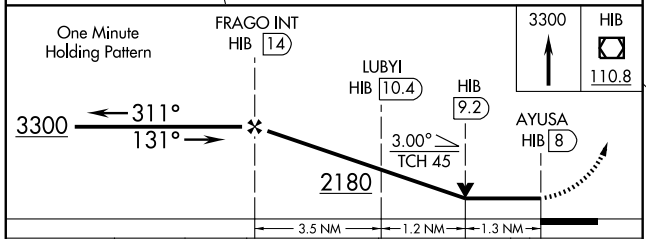
For inoperative MALSR increase S-13 Cat A to 1 mile.
LUBYI FIX MINIMUMS: Increase Cat A and B to 1 mile.

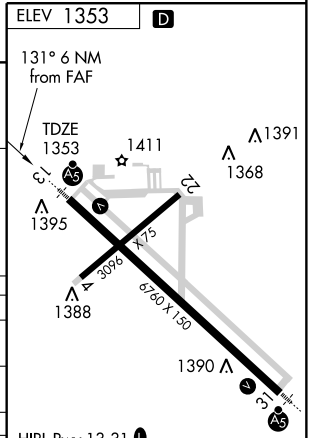
MALSR

MISSED APPROACH: Climb to 3300 direct HIB VOR/DME and hold.

ASOS	DULUTH APP CON★	CLNC DEL	UNICOM
126.425	125.45 255.9	127.4	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-13	2180-¾ 827 (900-¾)		2180-2 827 (900-2)	2180-2¼ 827 (900-2¼)
CIRCLING	2180-1 827 (900-1)	2180-1¼ 827 (900-1¼)	2180-2½ 827 (900-2½)	2180-2¾ 827 (900-2¾)
LUBYI FIX MINIMUMS				
S-13	1800-¾ 447 (500-¾)			1800-1 447 (500-1)
CIRCLING	1820-1 467 (500-1)	1840-1 487 (500-1)	1840-1½ 487 (500-1½)	1920-2 567 (600-2)

FAF to MAP 6 NM

Knots	60	90	120	150	180
Min:Sec	6:00	4:00	3:00	2:24	2:00

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME HIB	APP CRS	Rwy Idg	6760
110.8	311°	TDZE	1343
Chan 45		Apt Elev	1353

VOR RWY 31

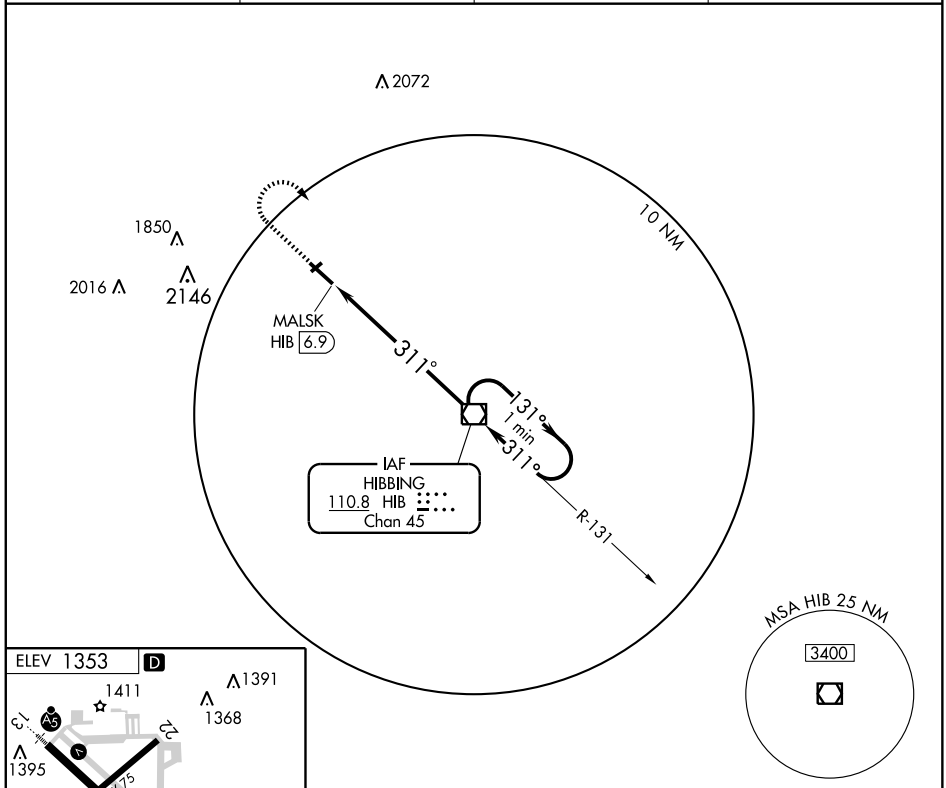
HIBBING/ RANGE RGNL (HIB)

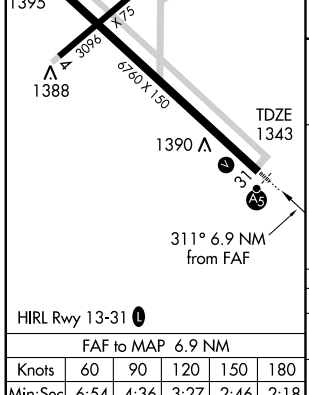
For inoperative MALSR, increase S-31 Cat. A and B visibility to 1 mile and Cat D visibility to 1¼ miles.

MALSR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3500 direct HIB VOR/DME and hold.

ASOS	DULUTH APP CON*	CLNC DEL	UNICOM
126.425	125.45 255.9	127.4	123.0 (CTAF) L

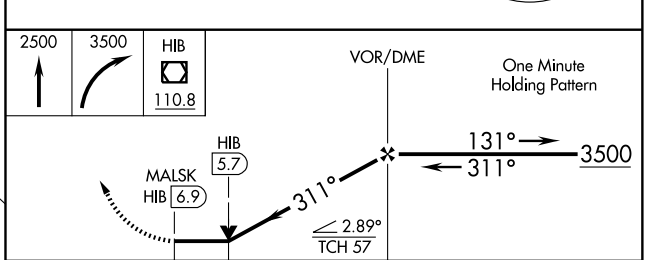




HIRL Rwy 13-31 L

FAF to MAP 6.9 NM

Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:27	2:46	2:18



CATEGORY	A	B	C	D
S-31	1760- ¾ 417 (500- ¾)			1760-1 417 (500-1)
CIRCLING	1820-1 467 (500-1)	1840-1 487 (500-1)	1840-1½ 487 (500-1½)	1920-2 567 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	2561
065°	TDZE	1021
	Apt Elev	1021

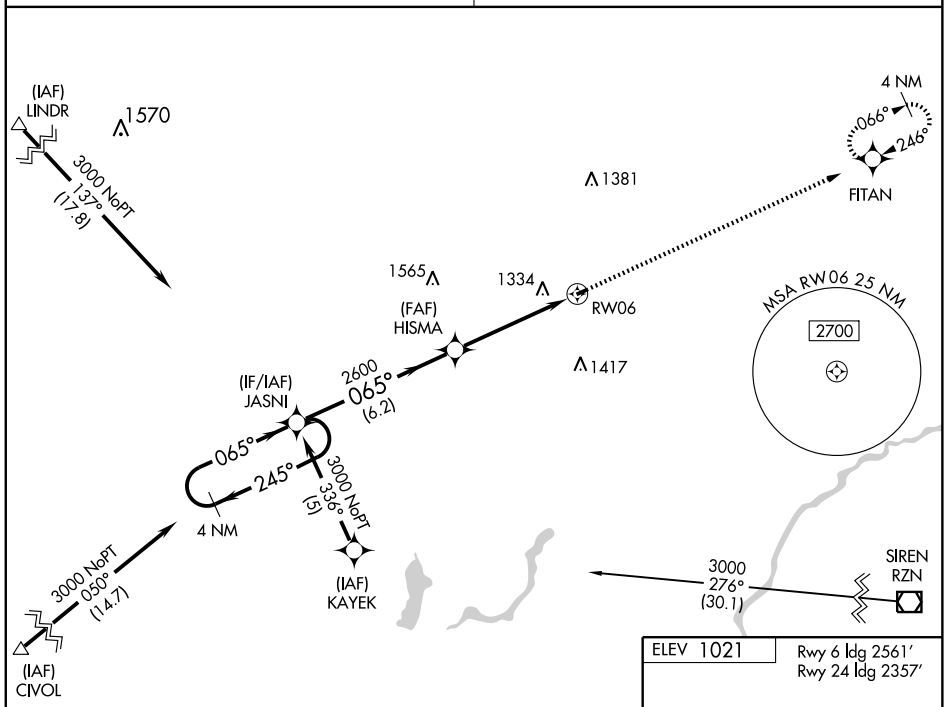
RNAV (GPS) RWY 6

HINCKLEY/ FIELD OF DREAMS (Ø4W)

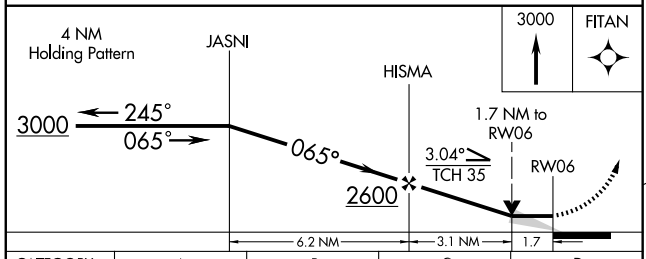
DME/DME RNP-0.3 NA.
NA
VDP NA when using Mora altimeter setting.
When local altimeter setting not received, use Mora altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climb to 3000 direct FITAN and hold.

MINNEAPOLIS CENTER	CTAF
121.05 397.9	122.9 L

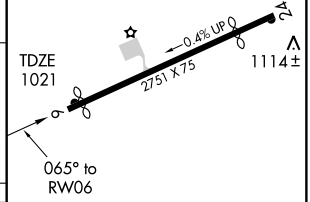


Procedure NA for arrivals at RZN VOR/DME via V505 and V13 northeast bound.



CATEGORY	A	B	C	D
LNAV MDA	1600-1 579 (600-1)		NA	
CIRCLING	1640-1 619 (700-1)		NA	

ELEV 1021
Rwy 6 ldg 2561'
Rwy 24 ldg 2357'



MIRL Rwy 6-24 L

NC-1. 03 JUN 2010 to 01 JUL 2010

HINCKLEY, MINNESOTA

AL-10344 (FAA)

APP CRS	Rwy Idg	2357
246°	TDZE	1021
	Apt Elev	1021

RNAV (GPS) RWY 24

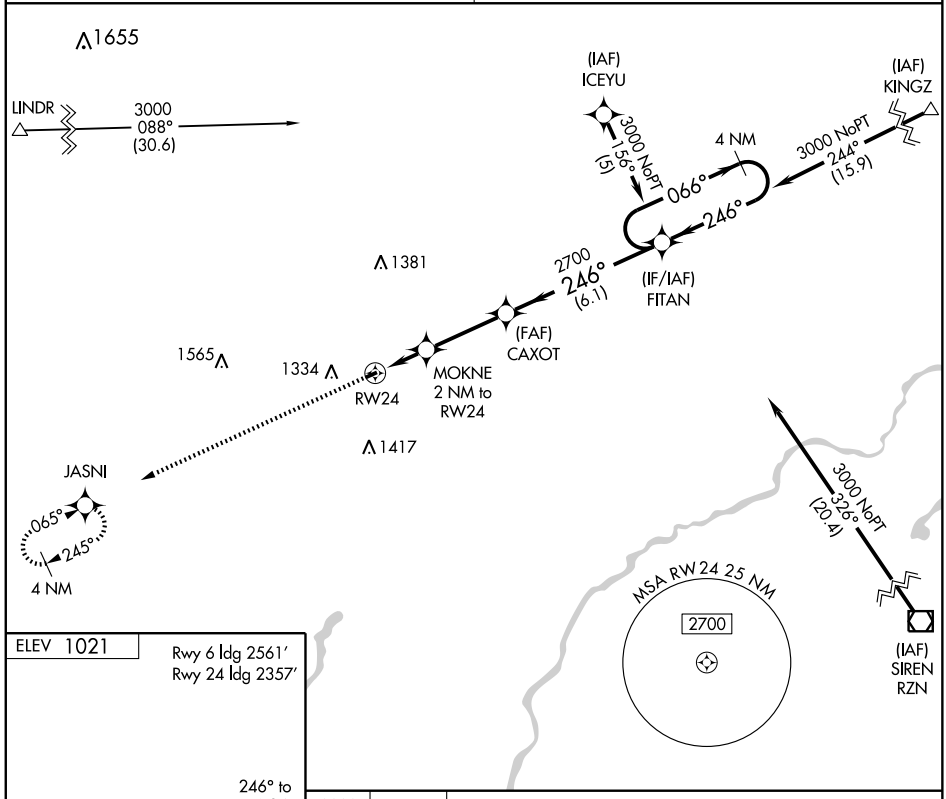
HINCKLEY/ FIELD OF DREAMS (Ø4W)

DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Mora altimeter setting and increase all MDAs 60 feet.
VDP NA when using Mora altimeter setting.

NA

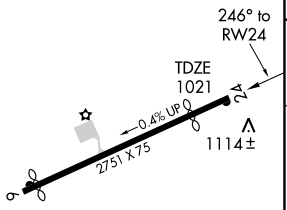
MISSED APPROACH: Climb to 3000 direct JASNI and hold.

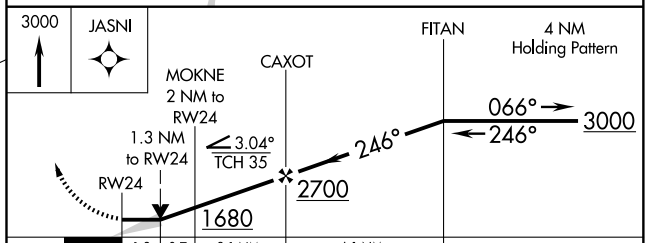
MINNEAPOLIS CENTER	CTAF
121.05 397.9	122.9 L



ELEV 1021

Rwy 6 Idg 2561′
Rwy 24 Idg 2357′





CATEGORY	A	B	C	D
LNAV MDA	1380-1 359 (400-1)		NA	
CIRCLING	1640-1 619 (700-1)		NA	

MIRL Rwy 6-24 L

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB HCD 209	APP CRS 151°	Rwy Idg 4000 TDZE 1060 Apt Elev 1060

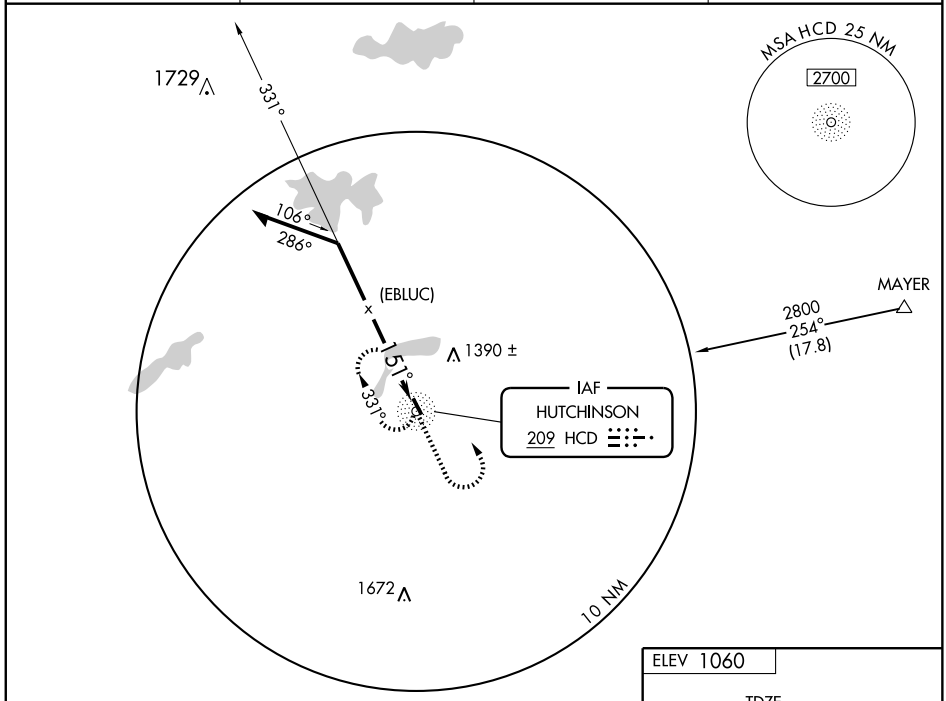
NDB or GPS RWY 15

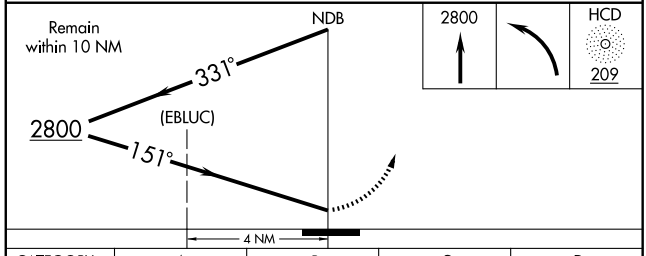
HUTCHINSON MUNI-BUTLER FIELD (HCD)

NA

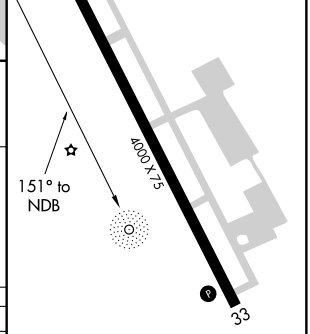
MISSED APPROACH: Climb to 2800, then left turn direct HCD NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
118.525	127.1 290.2	121.725	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-15	1620-1	560 (600-1)	1620-1½ 560 (600-1½)	NA
CIRCLING	1620-1	560 (600-1)	1620-1½ 560 (600-1½)	NA



MIRL Rwy 15-33 L

REIL Rwys 15 and 33 L

NC-1. 03 JUN 2010 to 01 JUL 2010

HUTCHINSON, MINNESOTA

AL-6554 (FAA)

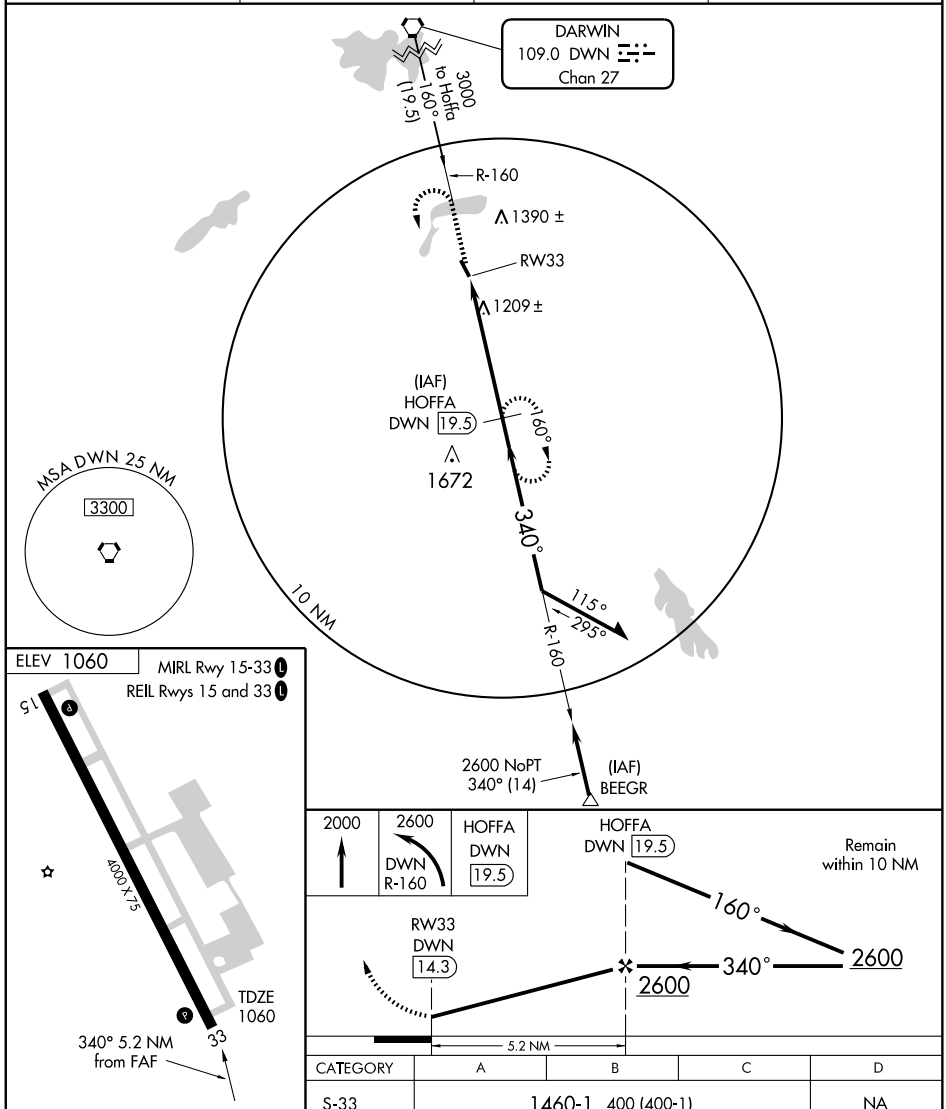
VORTAC DWN	APP CRS	Rwy Idg	4000
109.0	340°	TDZE	1060
Chan 27		Apt Elev	1060

VOR/DME or GPS RWY 33

HUTCHINSON MUNI-BUTLER FIELD (HCD)

MISSED APPROACH: Climb to 2000 then climbing left turn to 2600 via DWN R-160 to HOFFA/19.5 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
118.525	127.1 290.2	121.725	122.8 (CTAF) L



CATEGORY	A	B	C	D
S-33	1460-1 400 (400-1)			NA
CIRCLING	1540-1 480 (500-1)		1540-1½ 480 (500-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-INL	APP CRS	Rwy Idg	7400
111.95	313°	TDZE	1166
		Apt Elev	1185

COPTER ILS or LOC RWY 31

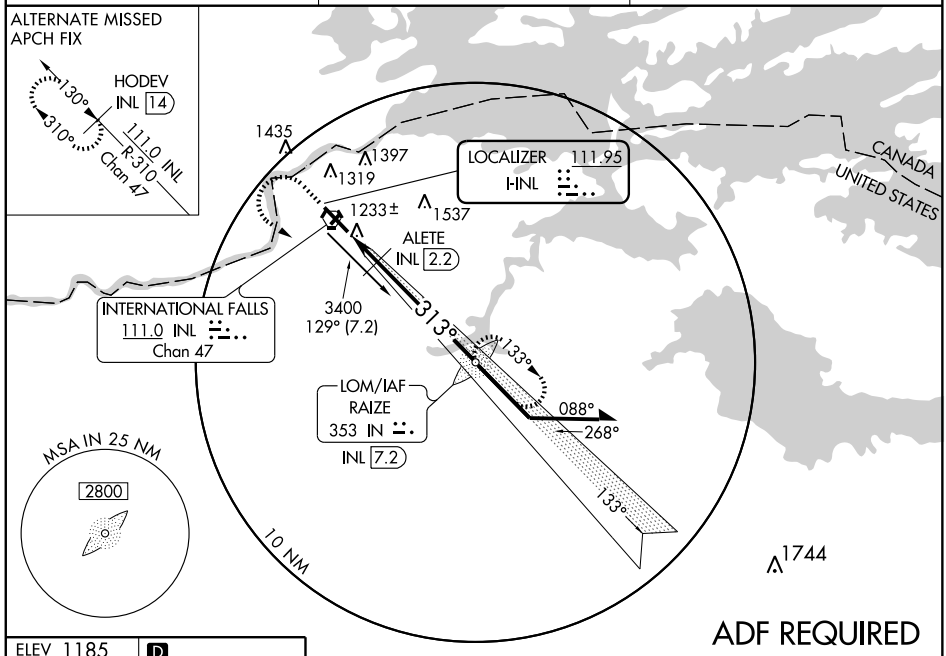
INTERNATIONAL FALLS/FALLS INTL (INL)

Inoperative table does not apply.
When local altimeter setting not received, use Baudette altimeter setting and increase DA 127 feet and ILS visibility ⅜ mile, increase all MDAs 140 feet.

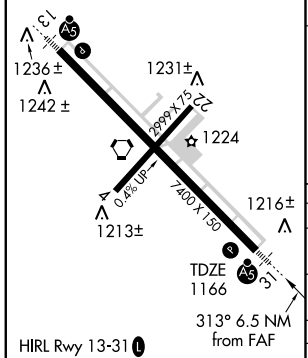
MALSR

MISSED APPROACH: Climb to 2500 then climbing left turn to 3400 direct RAIZE LOM and hold.

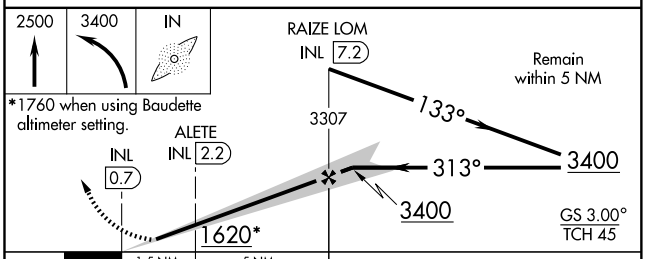
ASOS	MINNEAPOLIS CENTER	UNICOM
120.0	120.9 377.1	122.8 (CTAF) L



ELEV 1185 D



FAF to MAP 6.5 NM					
Knots	45	60	75	90	105
Min:Sec	8:40	6:30	5:12	4:20	3:43



CATEGORY	COPTER	B	C	D
H-ILS 31	1366-⅜ 200 (200-⅜)	NA		
H-LOC 31	1620-½ 454 (500-½)	NA		
CIRCLING	NA			
ALETE FIX MINIMUMS				
H-LOC 31	1520-½ 354 (400-½)	NA		
CIRCLING	NA			

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-ABK	APP CRS	Rwy Idg	7400
109.1	133°	TDZE	1184
		Apt Elev	1185

ILS or LOC/DME RWY 13

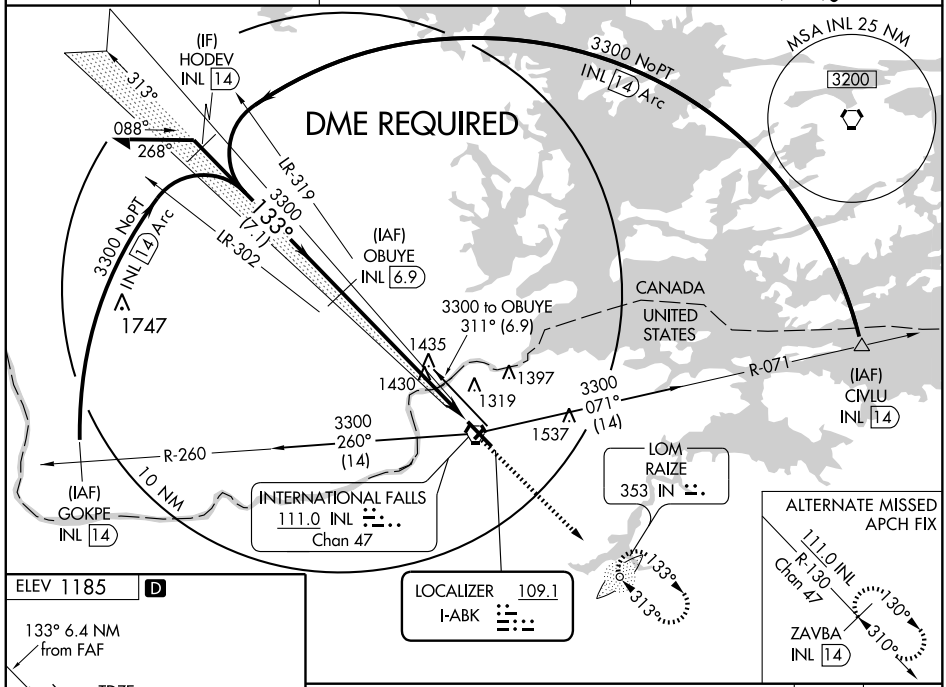
INTERNATIONAL FALLS/FALLS INTL (INL)

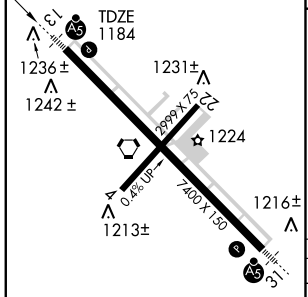
T A When local altimeter setting not received, use Baudette altimeter setting and increase DAs 127 feet and S-ILS 13 visibility ¼ mile all Cats, increase all MDAs 140 feet and S-LOC 13 Cat B visibility ¼ mile, Cat C and D ½ mile, increase Circling Cat B visibility ¼ mile, Cat C and D ½ mile. For inoperative MALSR when using Baudette altimeter setting, increase S-ILS 13 visibility ½ mile all Cats. ADF required. Circling to Rwy 4-22 NA at night. DME from INL VORTAC. Simultaneous reception of I-ABK and INL DME required. Caution opposing ILS continously on.

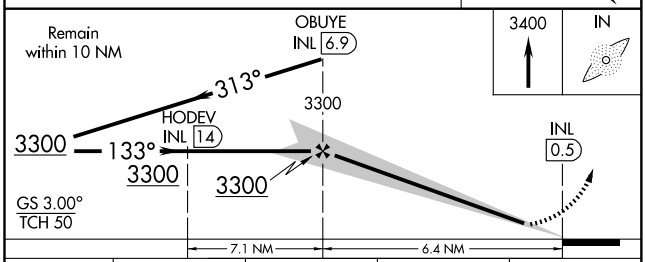
MALSR (A5)

MISSED APPROACH: Climb to 3400 direct IN LOM and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
120.0	120.9 377.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 13	1384-½ 200 (200-½)			
S-LOC 13	1820-½ 636 (700-½)		1820-1¼ 636 (700-1¼)	1820-1½ 636 (700-1½)
CIRCLING	1820-1 635 (700-1)		1820-1¾ 635 (700-1¾)	1820-2 635 (700-2)

HIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-INL	APP CRS	Rwy Idg	7400
111.95	313°	TDZE	1166
		Apt Elev	1185

ILS or LOC RWY 31

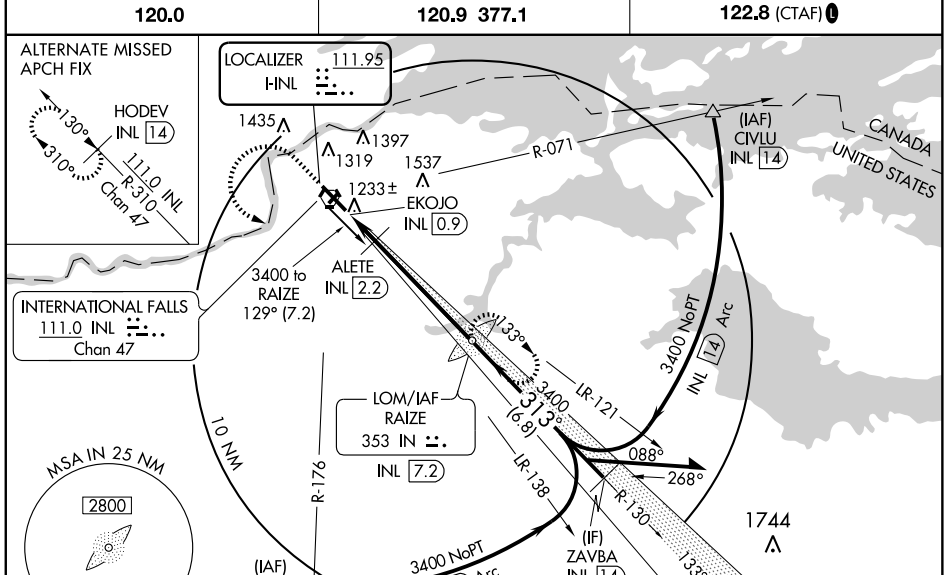
INTERNATIONAL FALLS/FALLS INTL (INL)

Circling to Rwy 4-22 NA at night. ADF required. Autopilot coupled approach NA below 2250 feet. When local altimeter setting not received, use Baudette altimeter setting and increase DA 127 feet and S-ILS visibility ¼ mile all Cats, increase all MDA 140 feet and increase all Cat C/D visibility ¼ mile. Caution opposing ILS continously on.

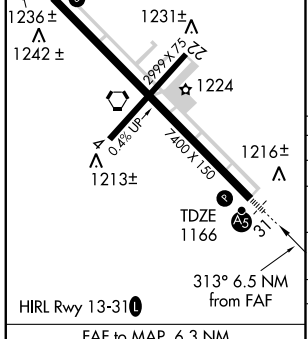
MALSR

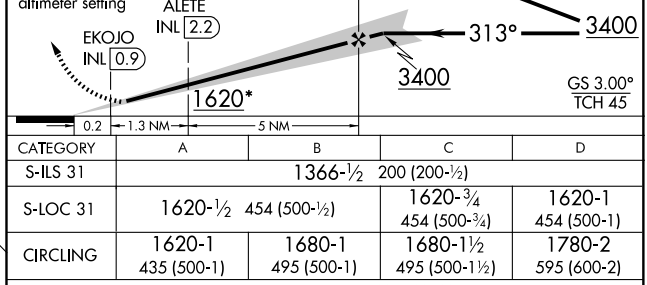
MISSED APPROACH: Climb to 2500 then climbing left turn to 3400 direct RAIZE LOM/INL VORTAC 7.2 DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
120.0	120.9 377.1	122.8 (CTAF) L



ELEV 1185 D





FAF to MAP 6.3 NM					
Knots	60	90	120	150	180
Min:Sec	6:18	4:12	3:09	2:31	2:06

CATEGORY	A	B	C	D
S-ILS 31	1366-½ 200 (200-½)			
S-LOC 31	1620-½ 454 (500-½)		1620-¾ 454 (500-¾)	1620-1 454 (500-1)
CIRCLING	1620-1 435 (500-1)	1680-1 495 (500-1)	1680-1½ 495 (500-1½)	1780-2 595 (600-2)
ALETE FIX MINIMUMS				
S-LOC 31	1520-½ 354 (400-½)			1520-¾ 354 (400-¾)
CIRCLING	1620-1 435 (500-1)	1680-1 495 (500-1)	1680-1½ 495 (500-1½)	1780-2 595 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

LOM IN	APP CRS		
353	313°	Rwy Idg	7400
		TDZE	1166
		Apt Elev	1185

NDB RWY 31

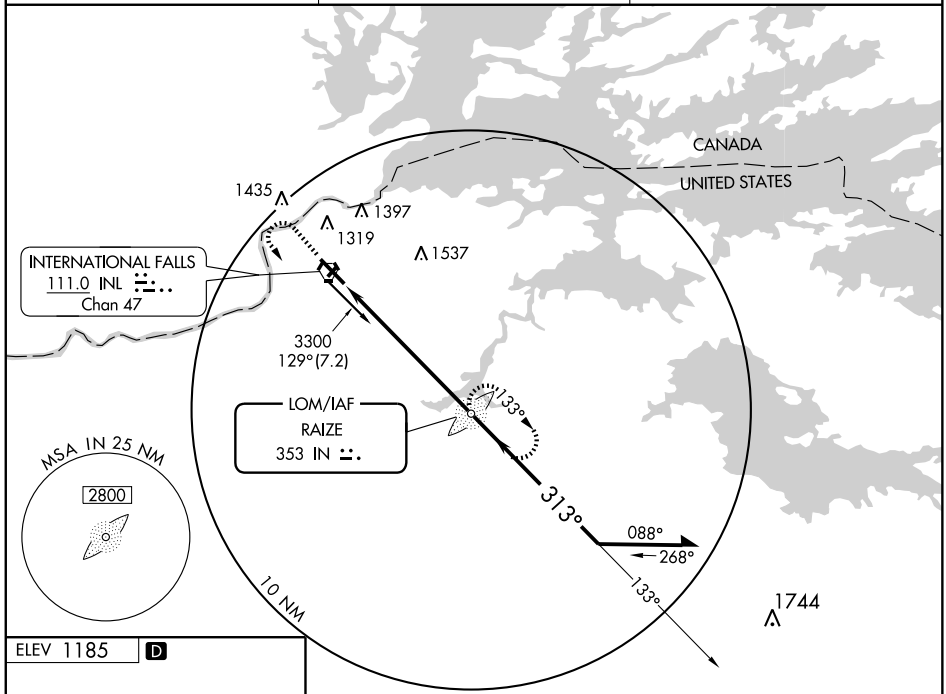
INTERNATIONAL FALLS/FALLS INTL (INL)

T A NA — Circling to Rwy 4-22 NA at night. When local altimeter setting not received, use Baudette altimeter setting and increase all MDAs 140 feet, and S-31 Cats C/D visibility ½ mile, Circling Cat C ½ mile, Cat D ¼ mile.

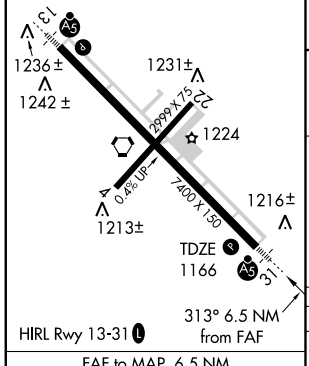
MALSR

MISSED APPROACH: Climb to 2500 then climbing left turn to 3300 direct IN LOM and hold.

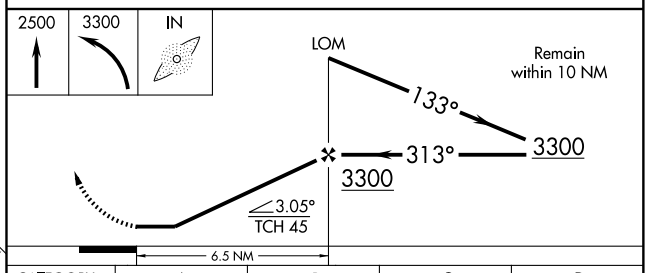
ASOS	MINNEAPOLIS CENTER	UNICOM
120.0	120.9 377.1	122.8 (CTAF) L



ELEV 1185 D



HIRL Rwy 13-31 L



FAF to MAP 6.5 NM					
Knots	60	90	120	150	180
Min:Sec	6:30	4:20	3:15	2:36	2:10

CATEGORY	A	B	C	D
S-31	1700-¾	534 (600-¾)	1700-1 534 (600-1)	1700-1½ 534 (600-1½)
CIRCLING	1700-1	515 (600-1)	1700-1½ 515 (600-1½)	1780-2 595 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 53706 W13A	APP CRS 133°	Rwy Idg 7400 TDZE 1184 Apt Elev 1185

RNAV (GPS) RWY 13

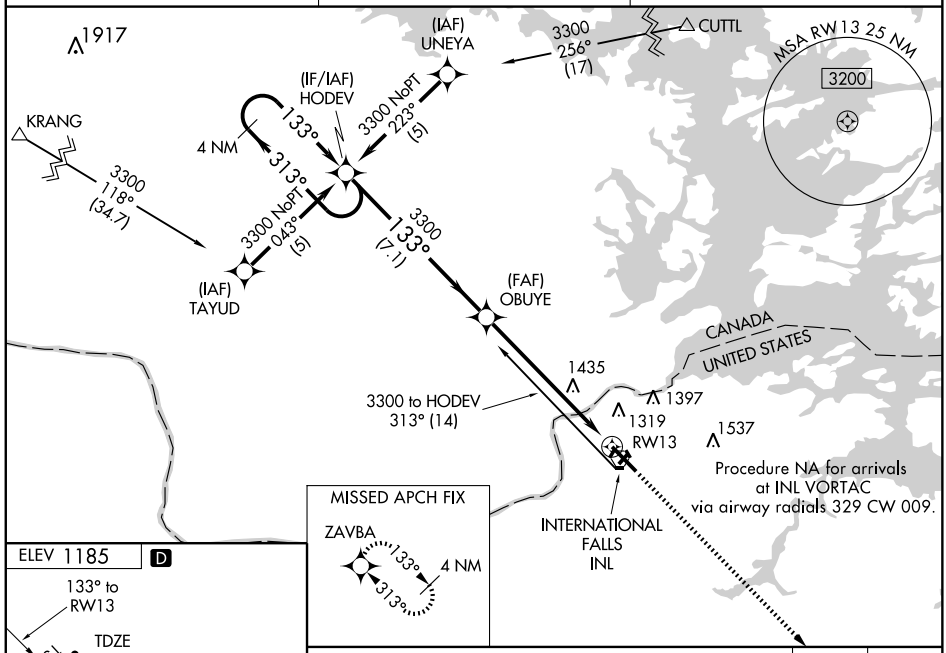
INTERNATIONAL FALLS/FALLS INTL (INL)

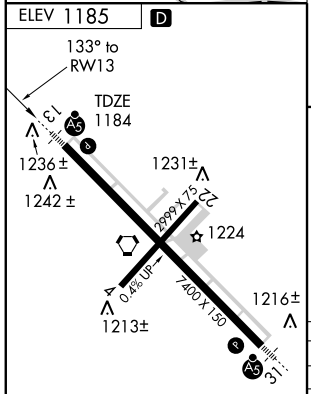
When local altimeter setting not received, use Baudette altimeter setting and increase all DAs 127 feet, increase LPV visibility ¼ mile all Cats, and LNAV/VNAV visibility ¾ mile all Cats, increase all MDAs 140 feet, increase LNAV Cat C and D visibility ½ mile, Circling Cat C visibility ½ mile and Cat D visibility ¼ mile. For inoperative MALSR when using Baudette altimeter setting, increase LPV visibility ½ mile all Cats, inoperative table does not apply to LNAV/VNAV. VDP NA when using Baudette altimeter setting. Baro-VNAV NA when using Baudette altimeter setting. Circling to Rwy 4-22 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 47°C (116°F). DME/DME RNP- 0.3 NA.

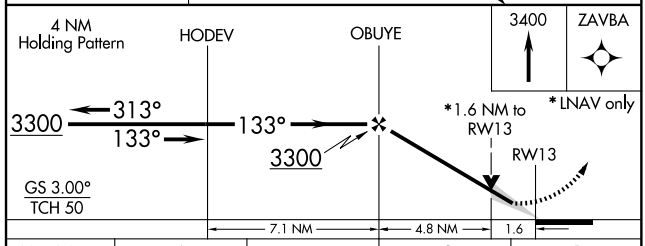
MALSR

MISSED APPROACH: Climb to 3400 direct ZAVBA and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
120.0	120.9 377.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1434-½ 250 (300-½)			
LNAV/VNAV DA	1669-1¼ 485 (500-1¼)			
LNAV MDA	1760-½ 576 (600-½)		1760-1 576 (600-1)	1760-1¼ 576 (600-1¼)
CIRCLING	1760-1 575 (600-1)		1760-1½ 575 (600-1½)	1780-2 595 (600-2)

HIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 78406 W31A	APP CRS 313°	Rwy Idg 7400 TDZE 1166 Apt Elev 1185

RNAV (GPS) RWY 31

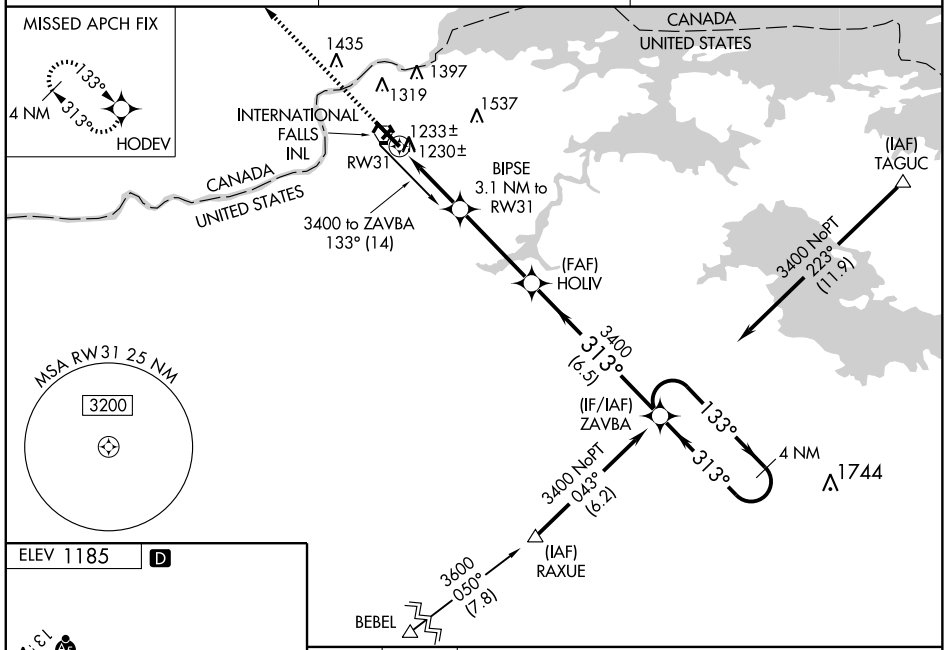
INTERNATIONAL FALLS/FALLS INTL (INL)

T A W When local altimeter setting not received, use Baudette altimeter setting and increase all DAs 127 feet, and LPV and LNAV/VNAV visibility ½ mile all Cats, increase all MDAs 140 feet and LNAV Cat C visibility ¼ mile and Circling Cat C and D visibility ¼ mile. For inoperative MALSR when using Baudette altimeter setting, increase LPV visibility ½ mile all Cats. For inoperative MALSR, increase LPV visibility ½ mile all Cats, inoperative table does not apply to LNAV Cat D. VDP NA when using Baudette altimeter setting. Baro-VNAV NA when using Baudette altimeter setting. Circling to Rwy 4-22 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 47°C (116°F). DME/DME RNP-0.3 NA.

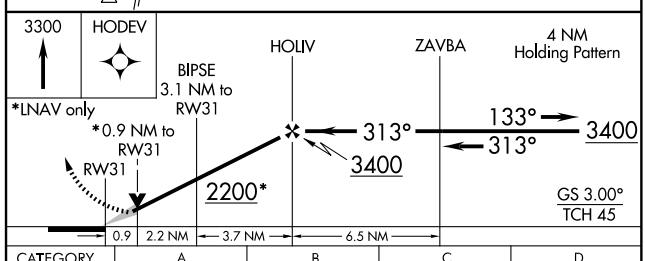
MALSR

MISSED APPROACH: Climb to 3300 direct HODEV and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
120.0	120.9 377.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1462-½ 296 (300-½)			
LNAV/VNAV DA	1500-¾ 334 (400-¾)			
LNAV MDA	1500-½ 334 (400-½)			1500-1 334 (400-1)
CIRCLING	1620-1 435 (500-1)	1680-1 495 (500-1)	1680-1½ 495 (500-1½)	1780-2 595 (600-2)

HIRL Rwy 13-31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VORTAC INL	APP CRS	Rwy Idg	7400
111.0	305°	TDZE	1166
Chan 47		Apt Elev	1185

VOR/DME RWY 31

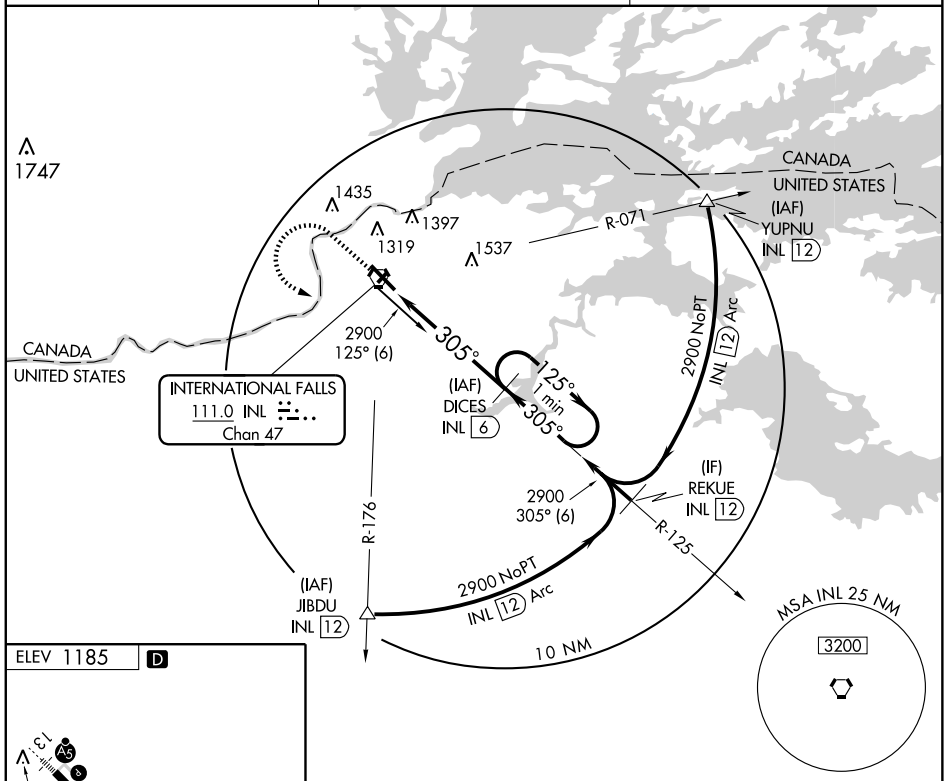
INTERNATIONAL FALLS/FALLS INTL (INL)

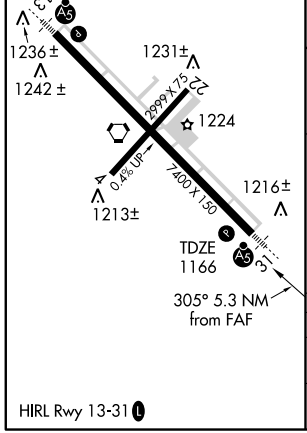
Circling to Rwy 4-22 NA at night.
When local altimeter setting not received, use Baudette altimeter setting and increase all MDAs 140 feet, increase S-31 Cat C and D visibility ¼ mile, and Circling Cat C and D visibility ¼ mile.

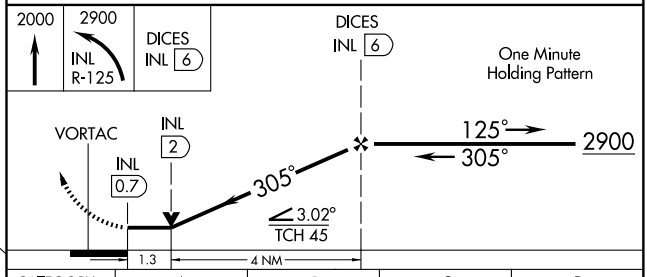
MALSR

MISSED APPROACH: Climb to 2000 then climbing left turn to 2900 via INL VORTAC R-125 to DICES/6 DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
120.0	120.9 377.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-31	1620-½ 454 (500-½)		1620-¾ 454 (500-¾)	1620-1 454 (500-1)
CIRCLING	1620-1 435 (500-1)	1680-1 495 (500-1)	1680-1½ 495 (500-1½)	1780-2 595 (600-2)

HIRL Rwy 13-31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VORTAC INL	APP CRS	Rwy Idg	7400
111.0	134°	TDZE	1184
Chan 47		Apt Elev	1185

VOR RWY 13

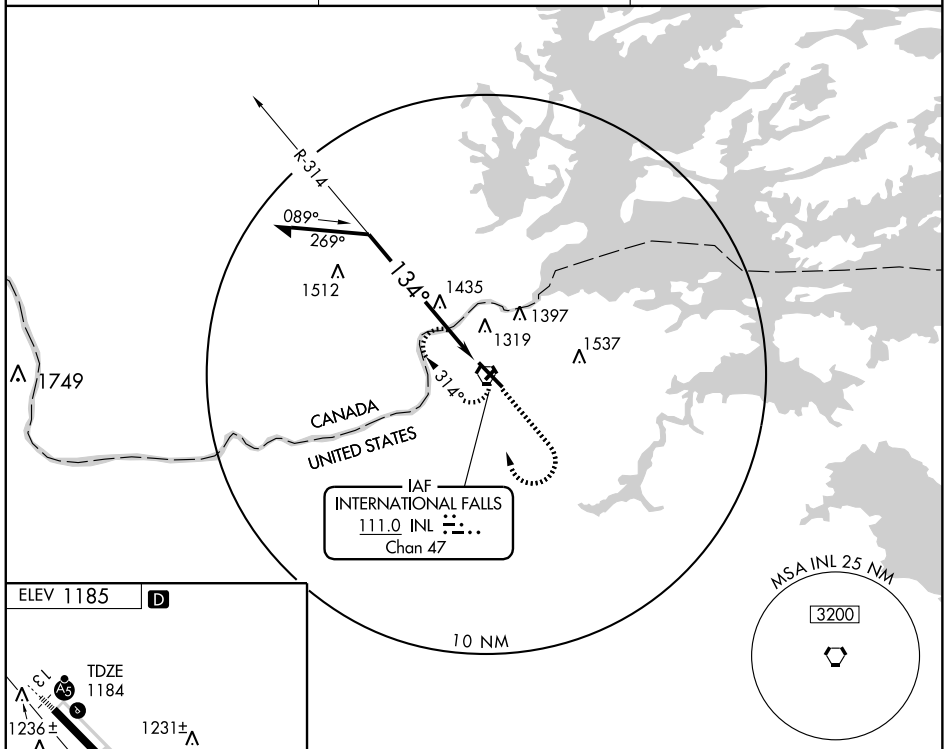
INTERNATIONAL FALLS/FALLS INTL (INL)

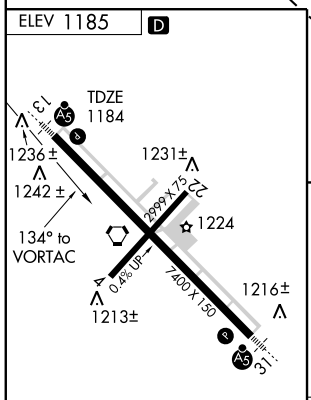
Circling to Rwy 4-22 NA at night.
VDP NA when using Baudette altimeter setting.
When local altimeter setting not received, use Baudette altimeter setting and increase all MDAs 140 feet, and S-13 Cats A/B visibility ¼ mile, Cats C/D visibility ½ mile. Increase Circling Cat B visibility ¼ mile, Cat C and D ½ mile. For inoperative MALSR when using Baudette altimeter setting, increase S-13 Cat A visibility ¼ mile.

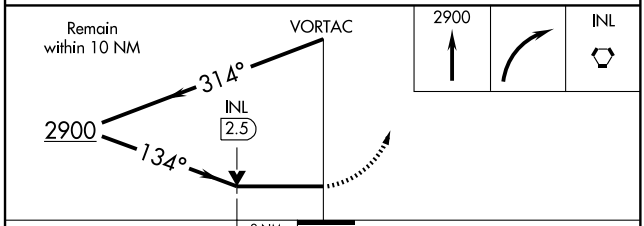
MALSR

MISSED APPROACH: Climb to 2900 then right turn direct INL VORTAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
120.0	120.9 377.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-13	1880-½ 696 (700-½)		1880-1½ 696 (700-1½)	1880-1¾ 696 (700-1¾)
CIRCLING	1880-1 695 (700-1)		1880-2 695 (700-2)	1880-2¼ 695 (700-2¼)

HIRL Rwy 13-31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VORTAC INL	APP CRS	Rwy Idg	7400
111.0	303°	TDZE	1174
Chan 47		Apt Elev	1185

VOR RWY 31

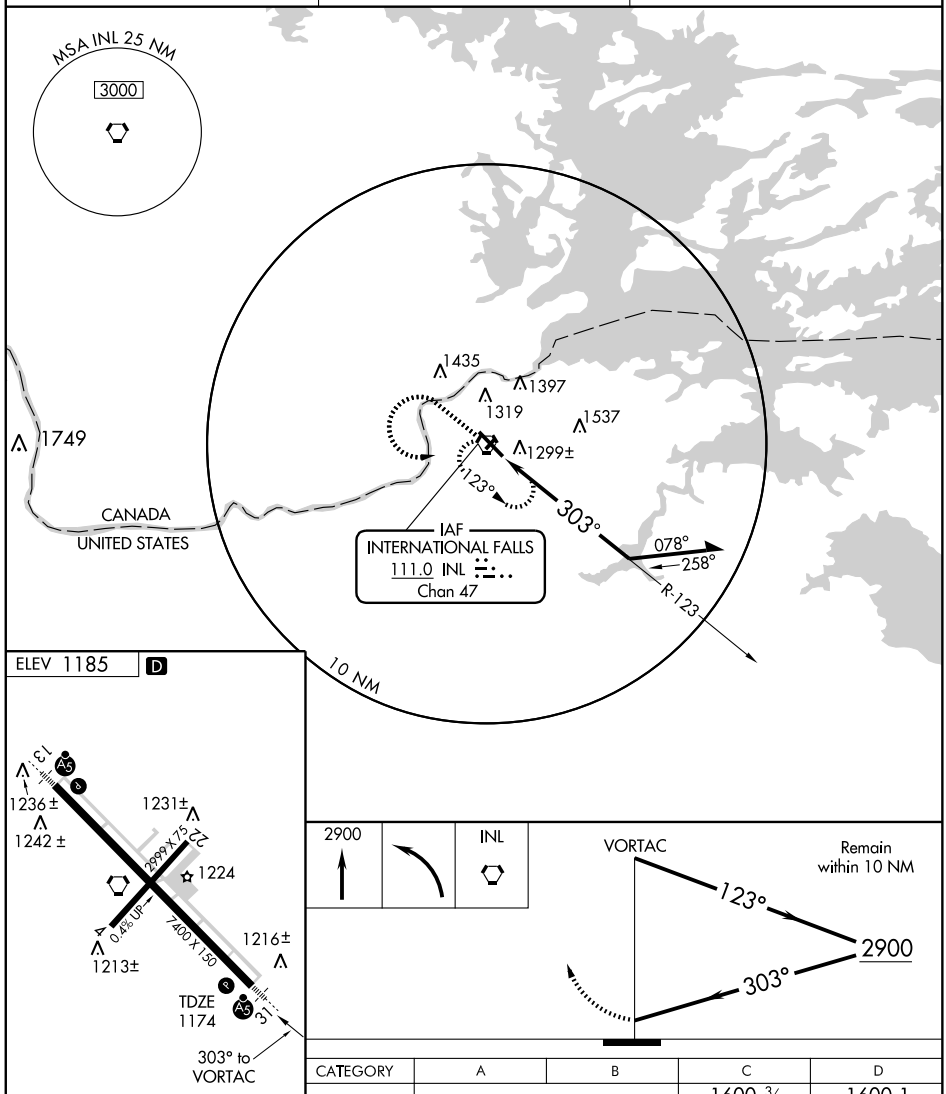
INTERNATIONAL FALLS/FALLS INTL (INL)

For inoperative MALSR, increase S-31 Cat. D visibility to 1¼. Circling to Rwy 4-22 NA at night.

MALSR

MISSED APPROACH: Climb to 2900 then left turn direct INL VORTAC and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
120.0	120.9 377.1	122.8 (CTAF) L



CATEGORY	A	B	C	D
S-31	1600-½ 426 (500-½)		1600-¾ 426 (500-¾)	1600-1 426 (500-1)
CIRCLING	1620-1 435 (500-1)	1680-1 495 (500-1)	1680-1½ 495 (500-1½)	1840-2 655 (700-2)

HIRL Rwy 13-31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

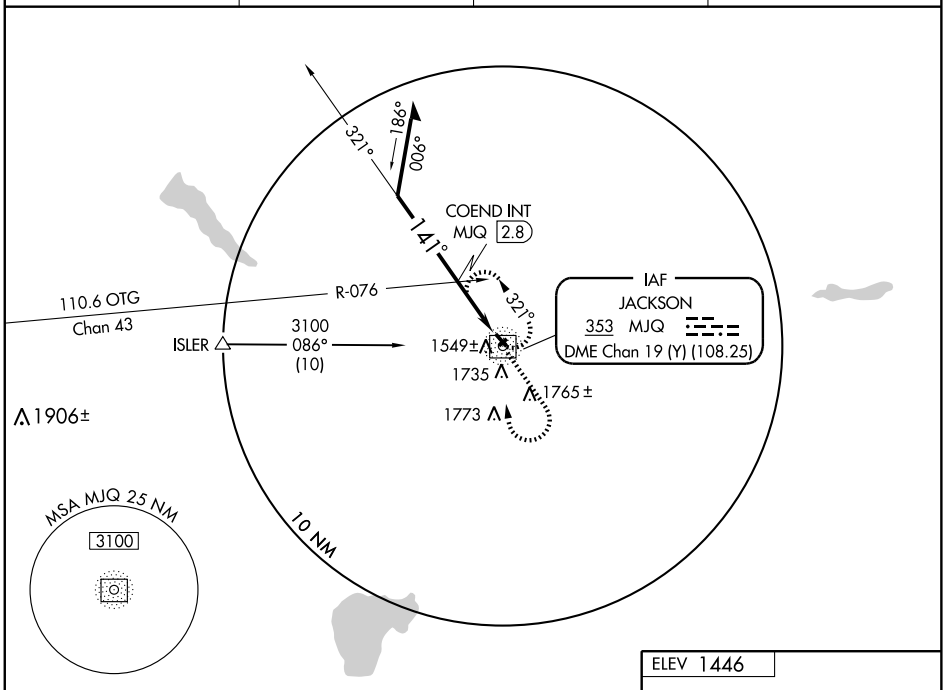
NDB/DME MJQ	APP CRS	Rwy Idg	3591
353	141°	TDZE	1445
DME Chan 19 (Y) (108.25)		Apt Elev	1446

NDB RWY 13
JACKSON MUNI (MJQ)

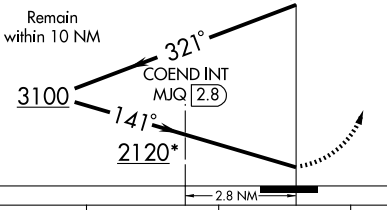
When local altimeter setting not received, use Estherville altimeter setting and increase all MDAs 60 feet and COEND FIX minimums S-13 visibility Cat C ¼ mile and circling Cat C ¼ mile.

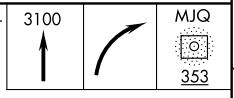
MISSED APPROACH: Climb to 3100 then right turn direct MJQ NDB/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
353	127.75 257.7	121.725	122.8 (CTAF) L



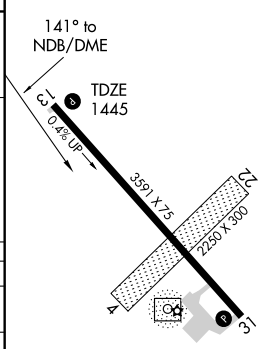
*2180 when using Estherville altimeter setting.





CATEGORY	A	B	C	D
S-13	2120-1	675 (700-1)	2120-2 675 (700-2)	NA
CIRCLING	2120-1	674 (700-1)	2120-2 674 (700-2)	NA
COEND FIX MINIMUMS				
S-13	1940-1	495 (500-1)	1940-1¼ 495 (500-1¼)	NA
CIRCLING	2040-1	594 (600-1)	2040-1½ 594 (600-1½)	NA

ELEV 1446



REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

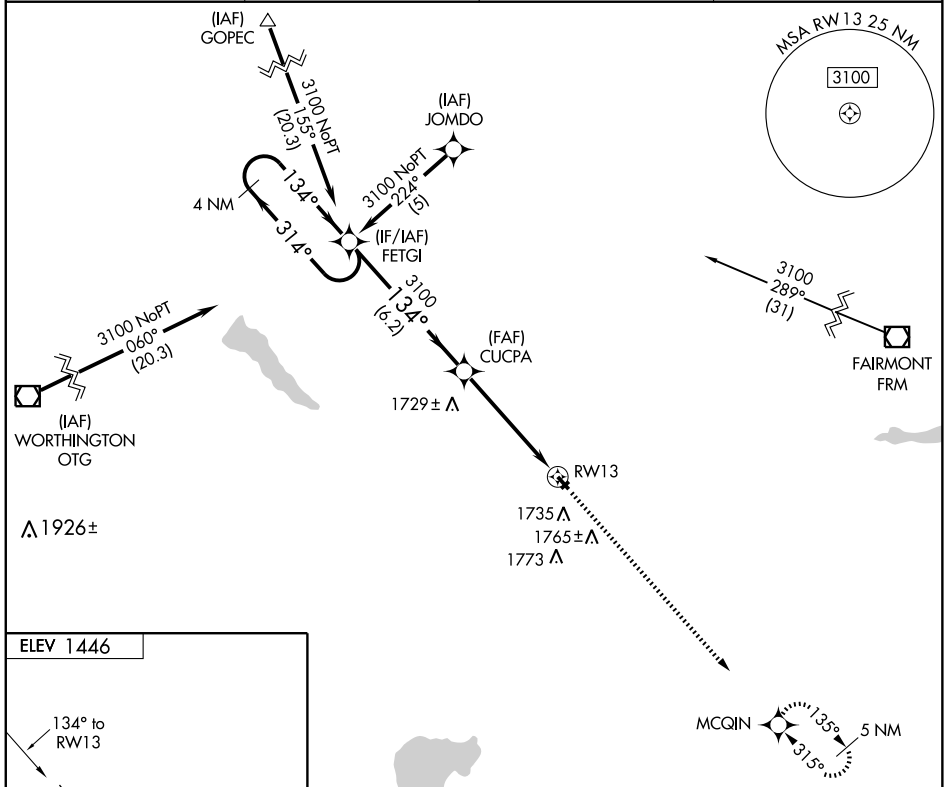
APP CRS	Rwy Idg	3591
134°	TDZE	1445
	Apt Elev	1446

RNAV (GPS) RWY 13
JACKSON MUNI (MJQ)

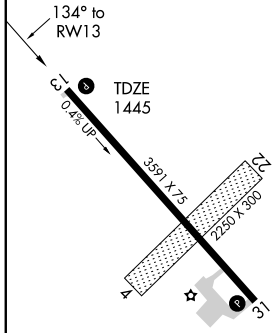
DME/DME RNP -0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Estherville altimeter setting and increase all MDAs 60 feet and visibility Cat C ¼ mile.

MISSED APPROACH: Climb to 4200 direct MCQIN and hold.

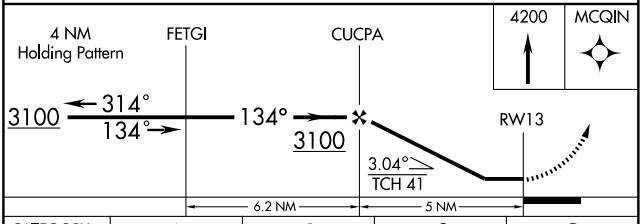
AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
353	127.75 257.7	121.725	122.8 (CTAF) L



Procedure NA for arrivals at OTG VOR/DME via V250 southwest bound.



REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L



CATEGORY	A	B	C	D
LNAV MDA	1920-1	475 (500-1)	1920-1¼ 475 (500-1¼)	NA
CIRCLING	2040-1	594 (600-1)	2040-1½ 594 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3591
314°	TDZE	1445
	Apt Elev	1446

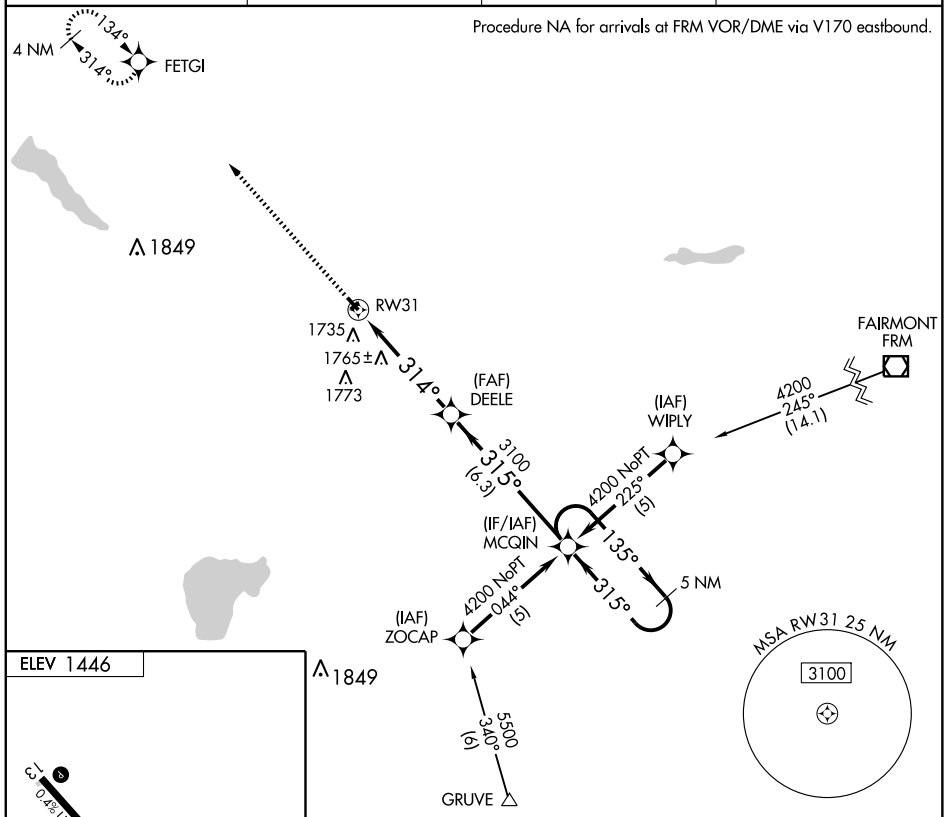
RNAV (GPS) RWY 31
JACKSON MUNI (MJQ)

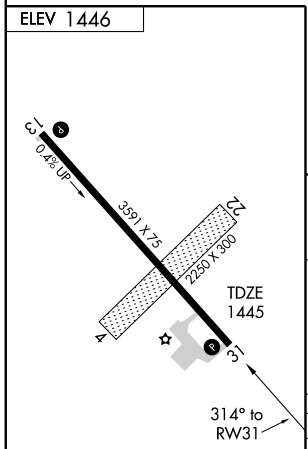
DME/DME RNP -0.3 NA.
When local altimeter setting not received, use Estherville altimeter setting and increase all MDAs 60 feet and visibility Cat C ¼ mile.

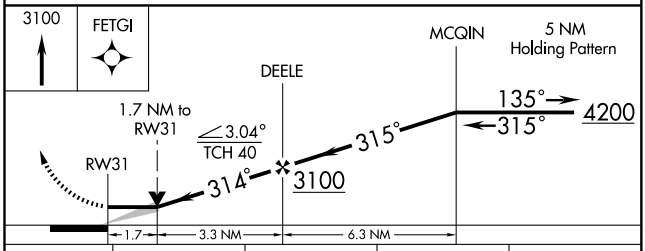
MISSED APPROACH: Climb to 3100 direct FETGI and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
353	127.75 257.7	121.725	122.8 (CTAF) L

Procedure NA for arrivals at FRM VOR/DME via V170 eastbound.







CATEGORY	A	B	C	D
LNAV MDA	2020-1	575 (600-1)	2020-1½ 575 (600-1½)	NA
CIRCLING	2040-1	594 (600-1)	2040-1½ 594 (600-1½)	NA

REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

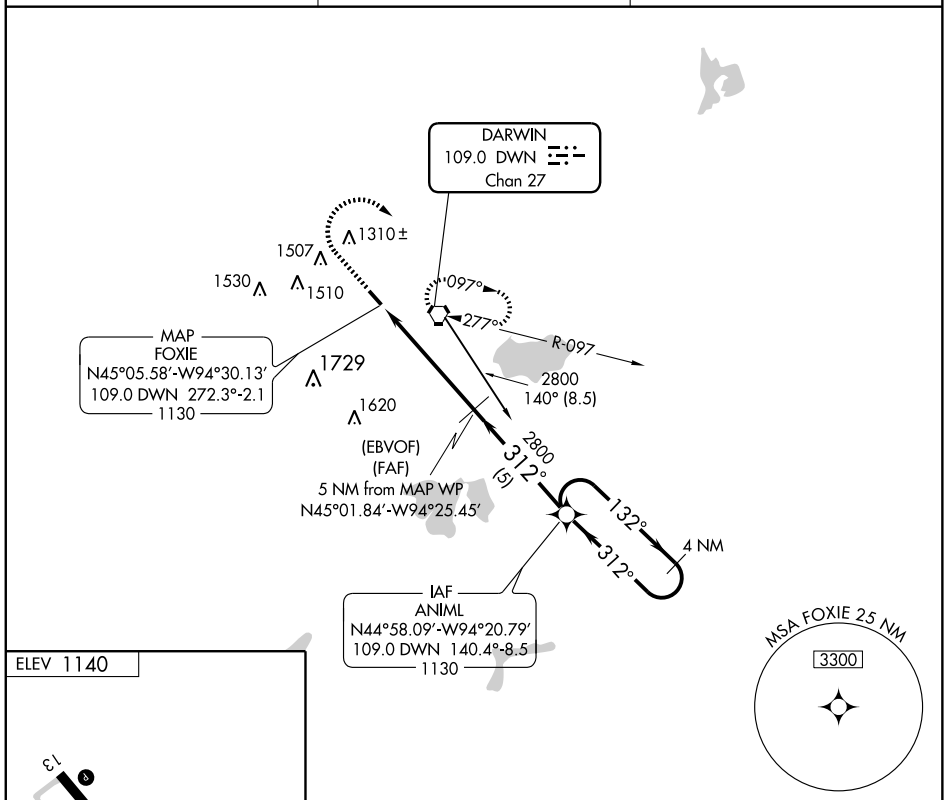
VORTAC DWN	APP CRS	Rwy Idg	4002
109.0	312°	TDZE	1140
Chan 27		Apt Elev	1140

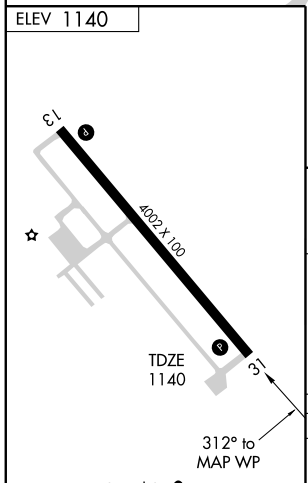
VOR/DME RNAV or GPS RWY 31

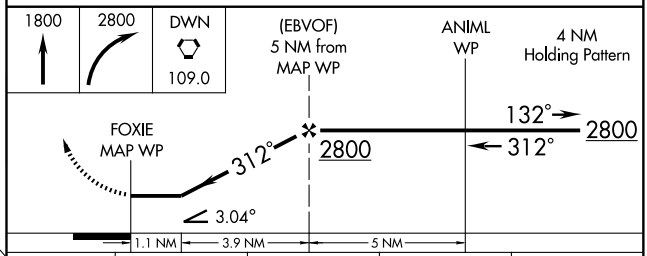
LITCHFIELD MUNI (LJF)

MISSED APPROACH: Climb to 1800 then climbing right turn to 2800 direct DWN VORTAC and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
109.0	125.5 323.1	122.9 L







CATEGORY	A	B	C	D
S-31	1540-1 400 (400-1)			1540-1¼ 400 (400-1¼)
CIRCLING	1600-1 460 (500-1)		1600-1½ 460 (500-1½)	1800-2 660 (700-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

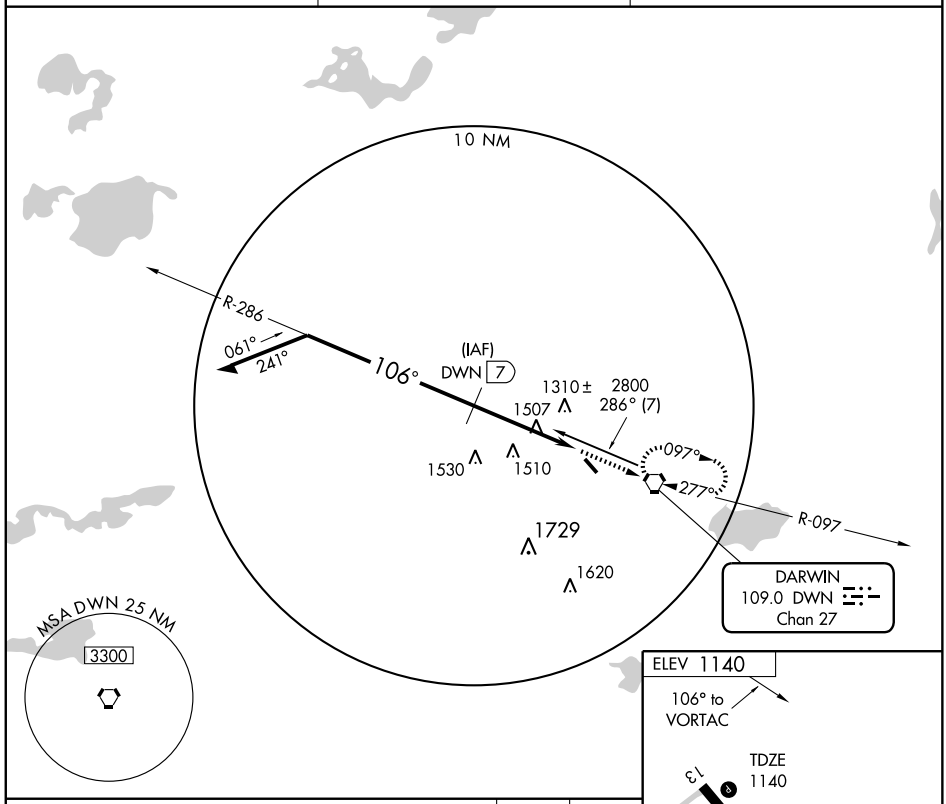
VORTAC DWN	APP CRS	Rwy Idg	4002
109.0	106°	TDZE	1140
Chan 27		Apt Elev	1140

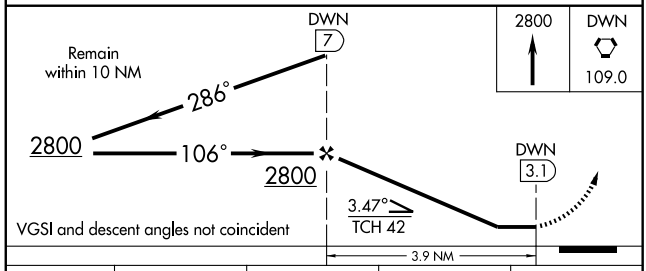
VOR/DME RWY 13

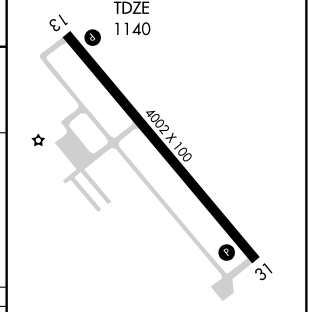
LITCHFIELD MUNI (LJF)

MISSED APPROACH: Climb to 2800 direct DWN VORTAC and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
109.0	125.5 323.1	122.9 (L)







CATEGORY	A	B	C	D
S-13	1760-1	620 (700-1)	1760-1¾ 620 (700-1¾)	1760-2 620 (700-2)
CIRCLING	1760-1	620 (700-1)	1760-1¾ 620 (700-1¾)	1800-2 660 (700-2)

REIL Rwys 13 and 31 (L)
MIRL Rwy 13-31 (L)

NC-1, 03 JUN 2010 to 01 JUL 2010

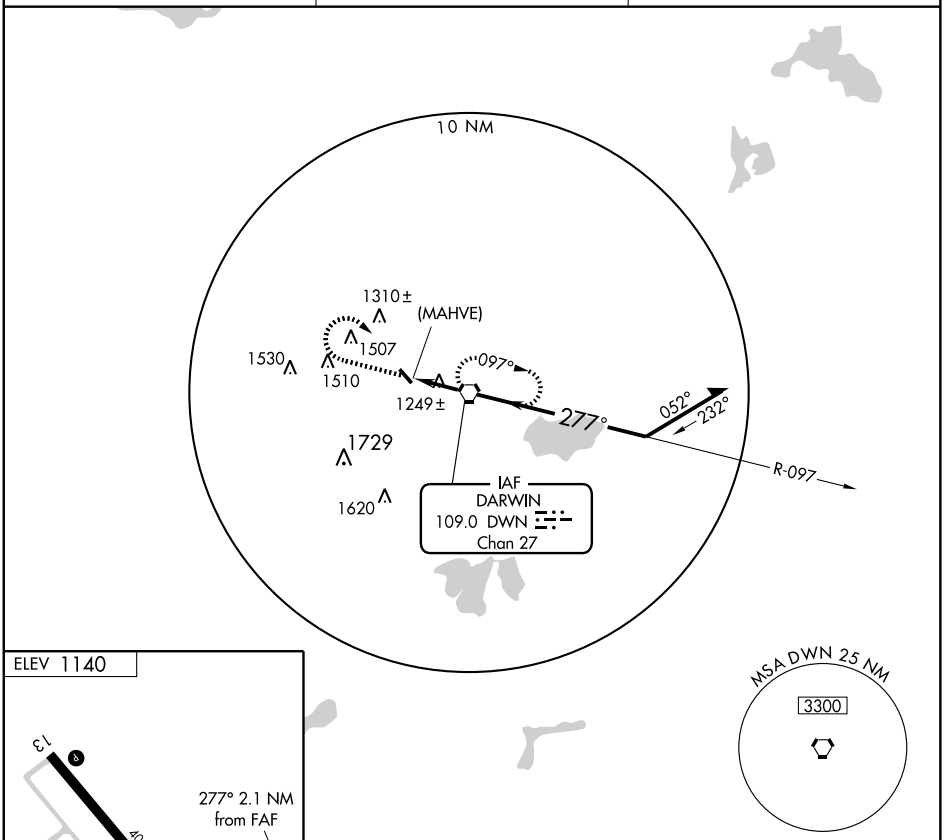
VORTAC DWN 109.0 Chan 27	APP CRS 277°	Rwy Idg N/A TDZE N/A Apt Elev 1140

VOR or GPS-A

LITCHFIELD MUNI (LJF)

MISSED APPROACH: Climb to 1800 then climbing right turn to 2800 direct DWN VORTAC and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
109.0	125.5 323.1	122.9 L



FAF to MAP 2.1 NM					
Knots	60	90	120	150	180
Min:Sec	2:06	1:24	1:03	0:50	0:42

CATEGORY	A	B	C	D
CIRCLING	1600-1 460 (500-1)		1600-1½ 460 (500-1½)	1800-2 660 (700-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4011
308°	TDZE	1122
	Apt Elev	1122

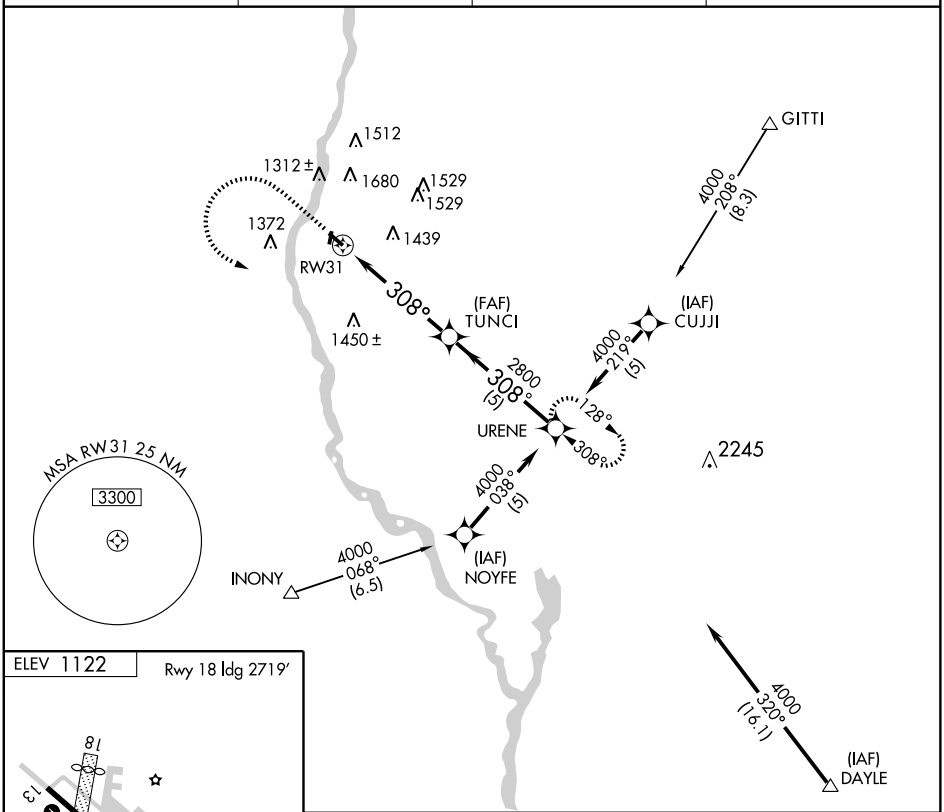
GPS RWY 31

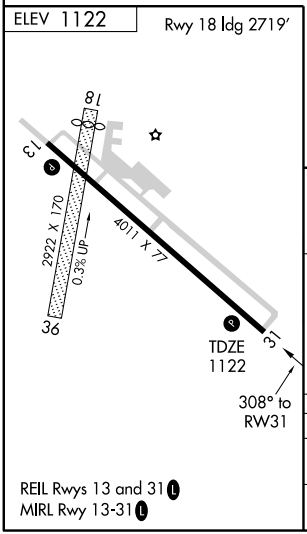
LITTLE FALLS/MORRISON COUNTY, CHARLES A. LINDBERGH FIELD (LXL)

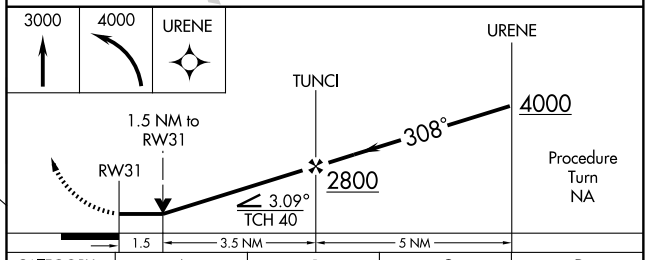
T
NA

MISSED APPROACH: Climb to 3000 then climbing left turn to 4000 direct URENE WP and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
359	118.05 239.0	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-31	1660-1	538 (600-1)	1660-1½ 538 (600-1½)	1660-1¾ 538 (600-1¾)
CIRCLING	1700-1 578 (600-1)	1720-1 598 (600-1)	1720-1½ 598 (600-1½)	1980-2¾ 858 (900-2¾)

REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB LXL	APP CRS	Rwy Idg	4011
359	312°	TDZE	1122
		Apt Elev	1122

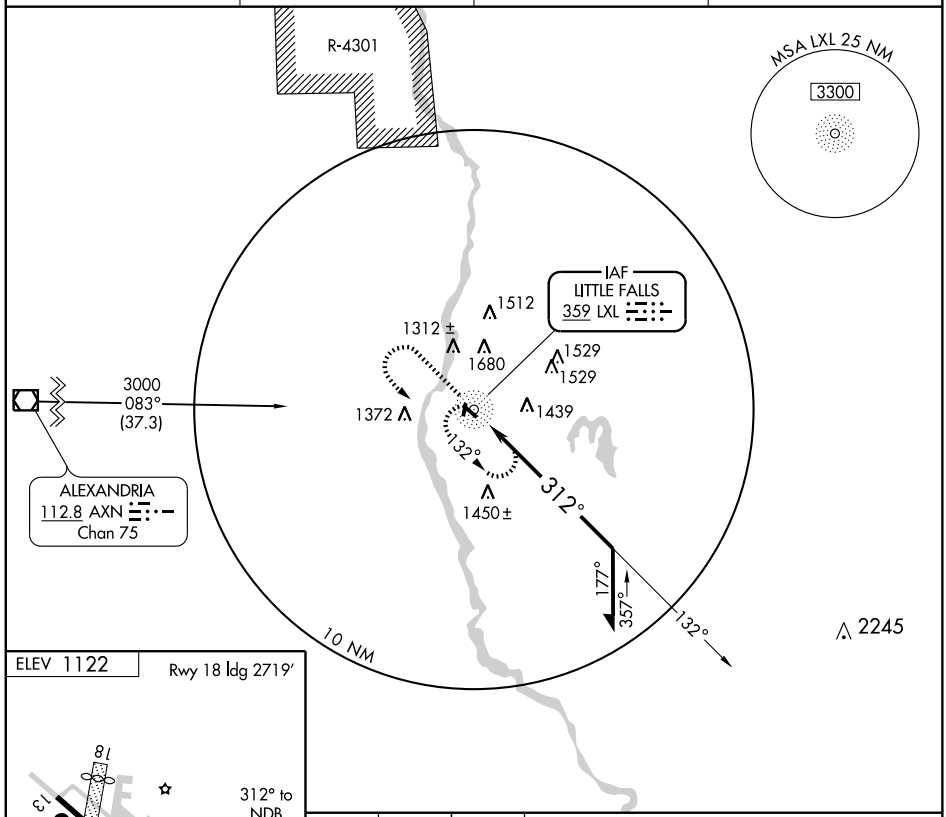
NDB RWY 31

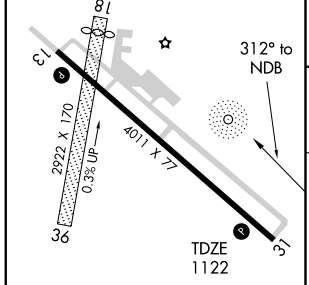
LITTLE FALLS/MORRISON COUNTY, CHARLES A. LINDBERGH FIELD (LXL)

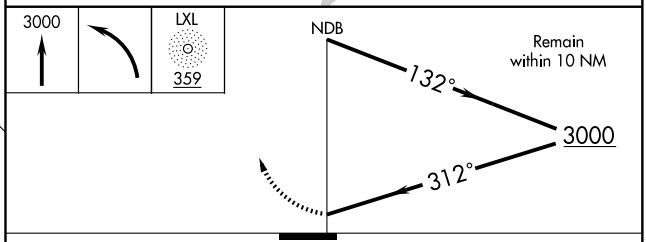
NA

MISSED APPROACH: Climb to 3000 then left turn direct LXL NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
359	118.05 239.0	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-31	1840-1	718 (800-1)	1840-2 718 (800-2)	1840-2¼ 718 (800-2¼)
CIRCLING	1840-1	718 (800-1)	1840-2 718 (800-2)	1980-2¾ 858 (900-2¾)

REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3000
344°	TDZE	1332
	Apt Elev	1333

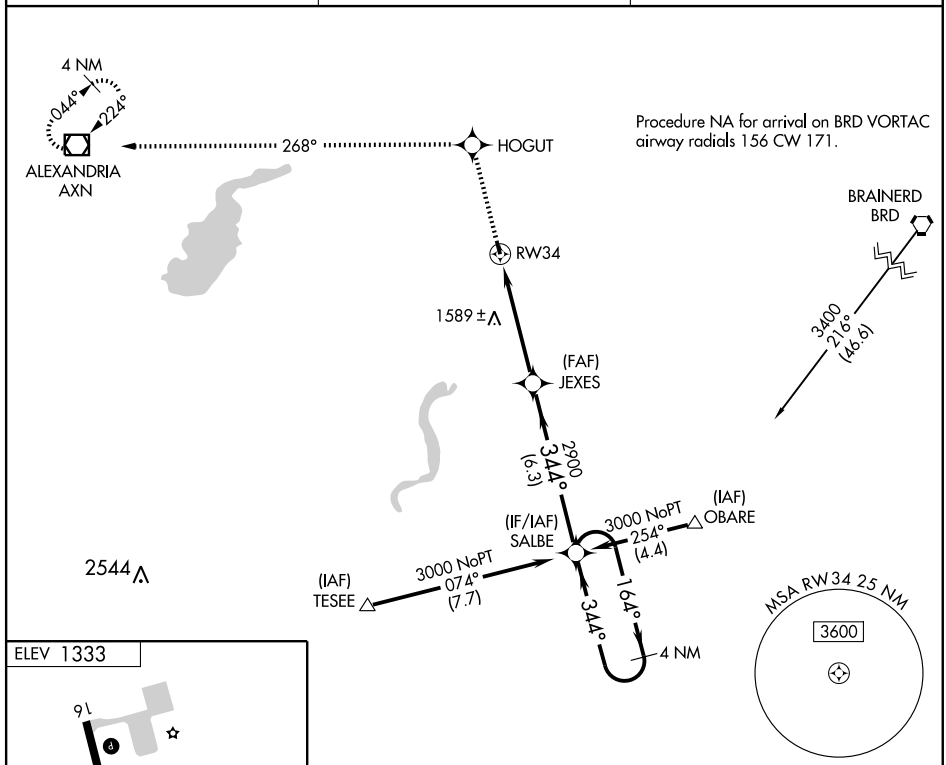
RNAV (GPS) RWY 34

LONG PRAIRIE/ TODD FIELD (14Y)

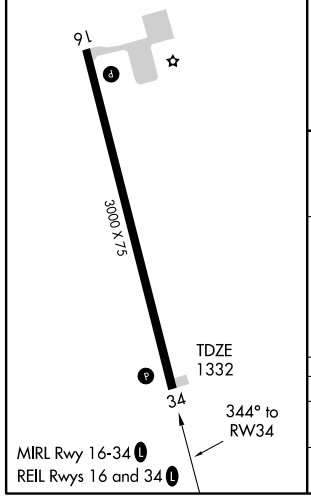
T NA — DME/DME RNP-0.3 NA. Procedure NA at night. Visibility reduction by helicopters NA. When local altimeter setting not received, use Alexandria altimeter setting and increase all MDA 80 feet and Circling Cat C visibility ¼ mile.

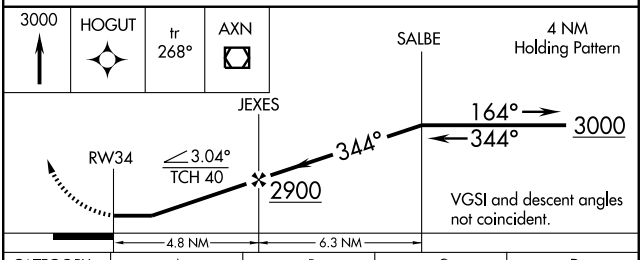
MISSED APPROACH: Climb to 3000 direct HOGUT and via track 268° to AXN VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
118.650	126.1 269.2	122.9 L



Procedure NA for arrivals at OBARE on V2 southeast bound.





CATEGORY	A	B	C	D
LNAV MDA	1840-1	508 (600-1)	1840-1½ 508 (600-1½)	NA
CIRCLING	1840-1	507 (600-1)	1920-1½ 587 (600-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

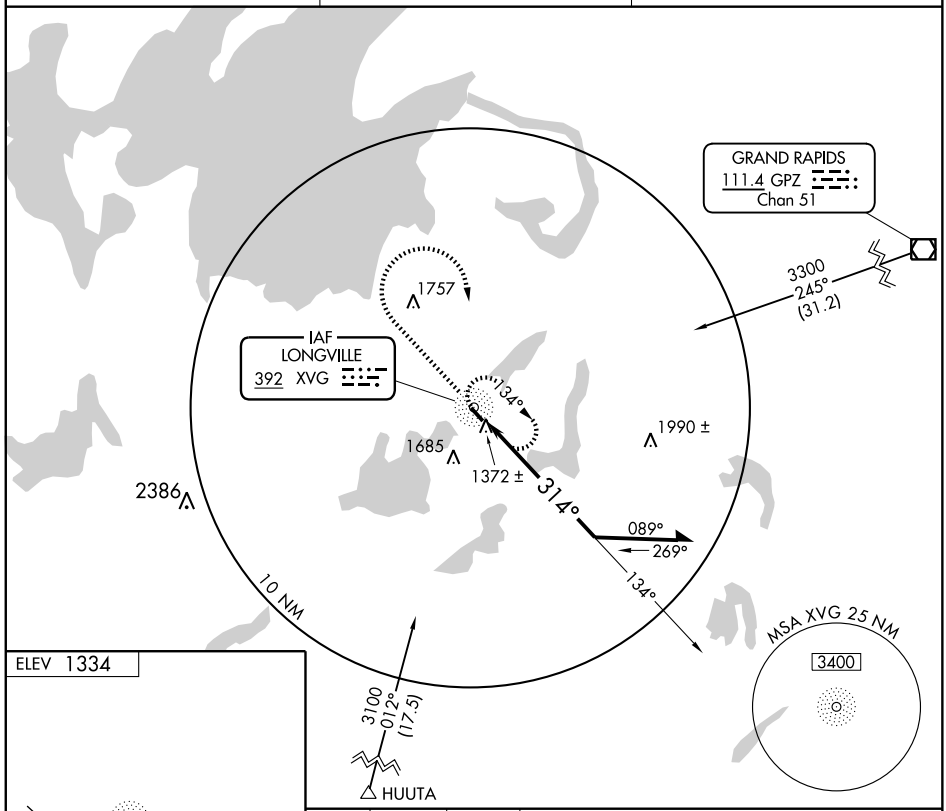
NDB XVG 392	APP CRS 314°	Rwy Idg 3560 TDZE 1332 Apt Elev 1334

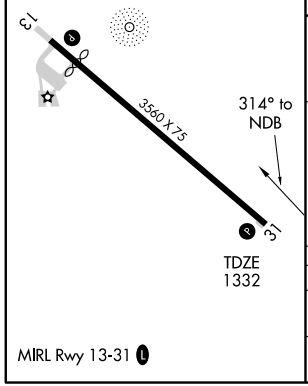
NDB RWY 31
LONGVILLE MUNI (XVG)

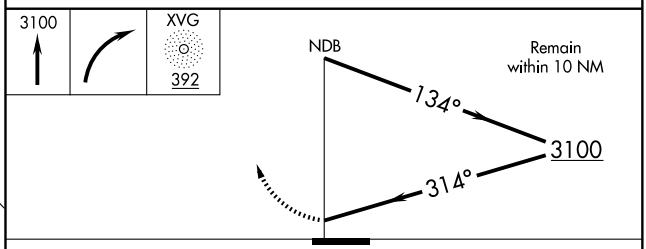
NA

MISSED APPROACH: Climb to 3100 then right turn direct XVG NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
392	118.05 239.0	122.9 L







CATEGORY	A	B	C	D
S-31	1920-1	588 (600-1)	NA	
CIRCLING	1920-1	586 (600-1)	NA	

NC-1. 03 JUN 2010 to 01 JUL 2010

LONGVILLE, MINNESOTA AL-9381 (FAA)

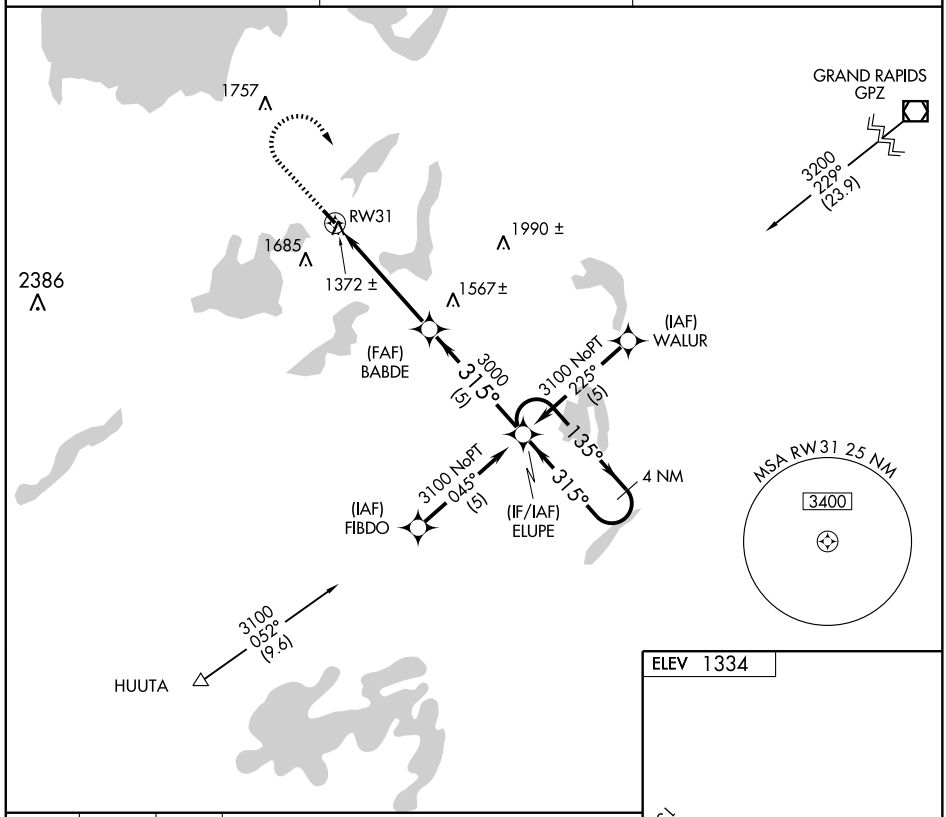
APP CRS	Rwy Idg	3560
315°	TDZE	1332
	Apt Elev	1334

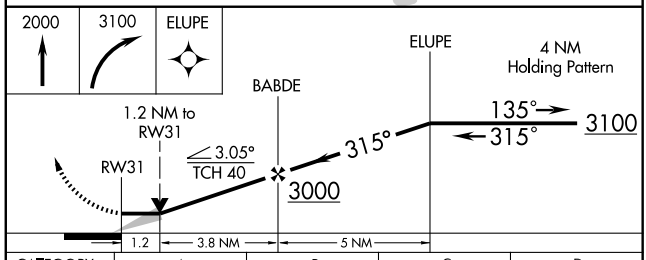
RNAV (GPS) RWY 31
LONGVILLE MUNI (XVG)

NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA

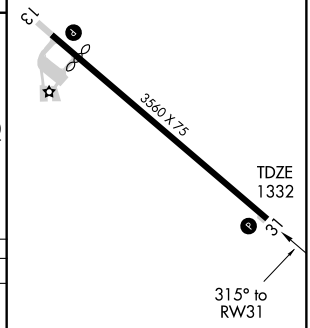
MISSED APPROACH: Climb to 2000 then climbing right turn to 3100 direct ELUPE WP and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
392	118.05 239.0	122.9 L





CATEGORY	A	B	C	D
LNAV MDA	1760-1	428 (500-1)	NA	
CIRCLING	1860-1	526 (600-1)	NA	



MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 86317 W18A	APP CRS 175°	Rwy Idg 4200 TDZE 1434 Apt Elev 1434

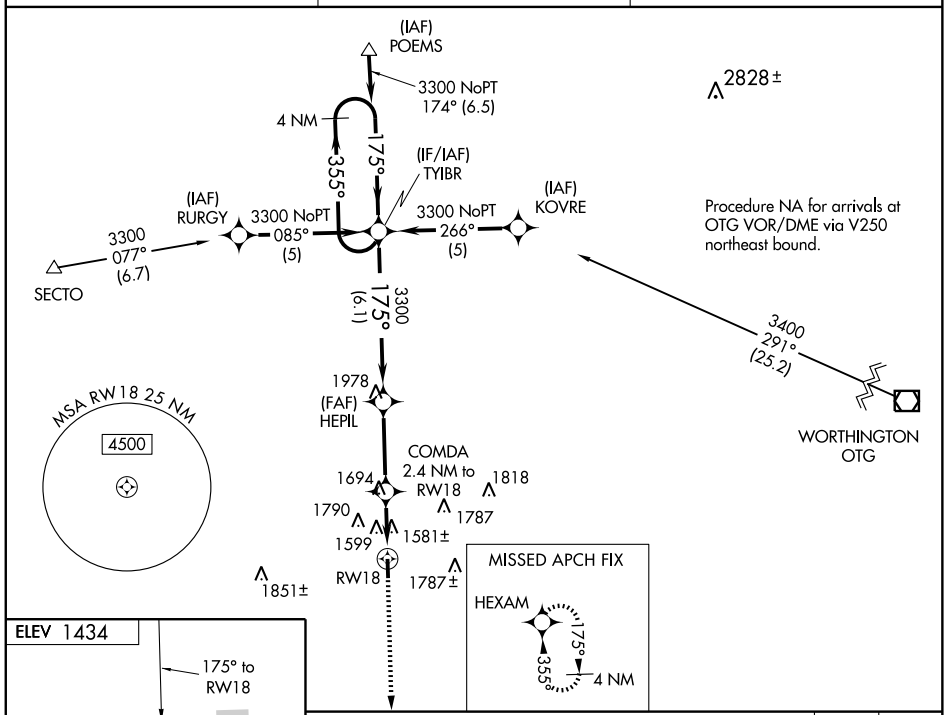
RNAV (GPS) RWY 18

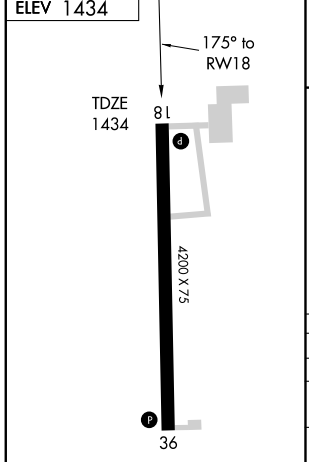
LUVERNE/ QUENTIN AANENSON FIELD (LYV)

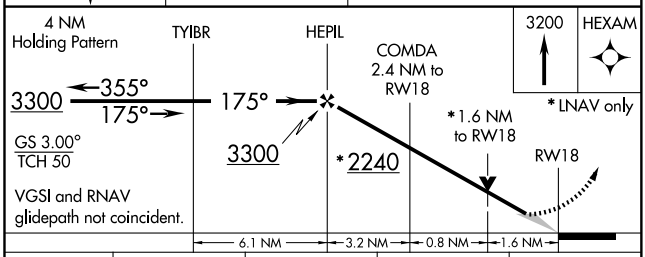
T NA — For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Pipestone altimeter setting and increase all DA 94 feet and all MDA 100 feet. Increase LNAV/VNAV all Cats, LNAV and Circling Cat C/D visibility ¼ mile. Baro-VNAV and VDP NA when using Pipestone altimeter setting.

MISSED APPROACH: Climb to 3200 direct HEXAM and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.825	132.05 317.4	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1634-1 200 (200-1)			
LNAV/ VNAV DA	2131-2½ 697 (700-2½)			
LNAV MDA	1960-1 526 (600-1)		1960-1½ 526 (600-1½)	1960-1¾ 526 (600-1¾)
CIRCLING	1960-1 526 (600-1)		2140-2 706 (800-2)	2140-2¼ 706 (800-2¼)

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 40117 W36A	APP CRS 355°	Rwy Idg 4200 TDZE 1432 Apt Elev 1434

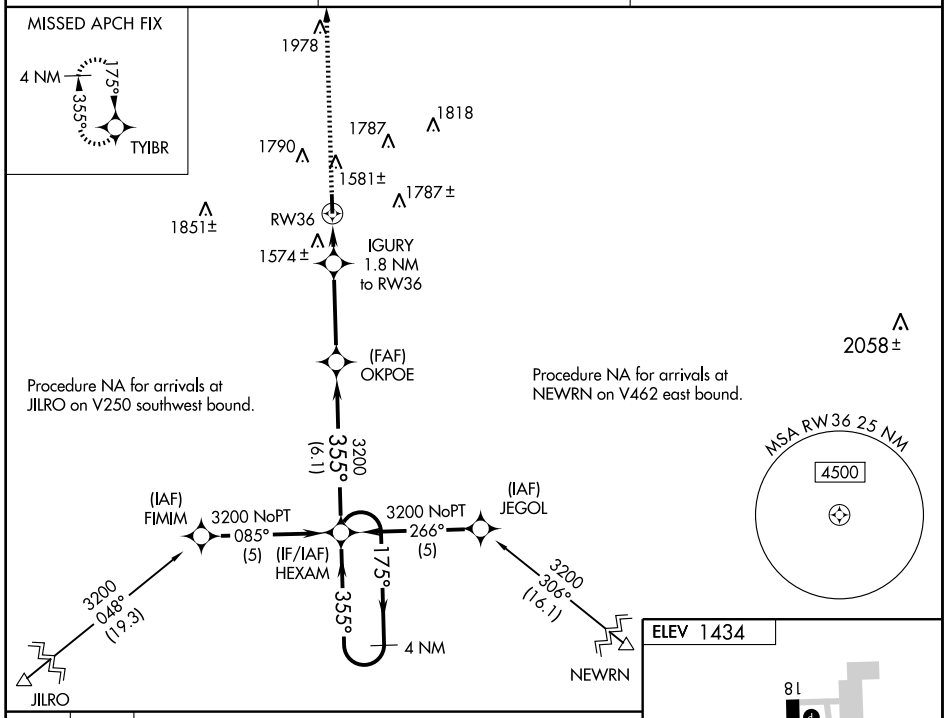
RNAV (GPS) RWY 36

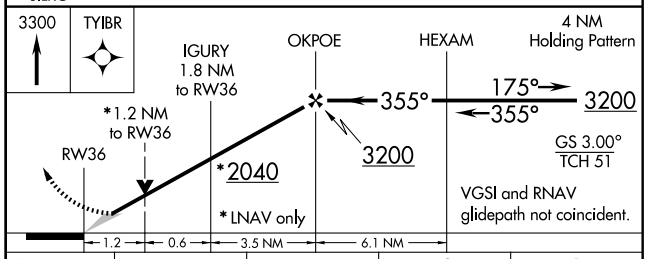
LUVERNE/ QUENTIN AANENSON FIELD (LYV)

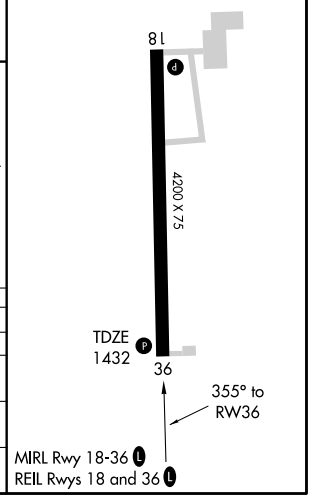
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use Pipestone altimeter setting and increase all DA 94 feet and all MDA 100 feet. Increase LNAV/VNAV all Cats LNAV and Circling Cat C/D visibility ¼ mile. Baro-VNAV and VDP NA when using Pipestone altimeter setting.

MISSED APPROACH: Climb to 3300 direct TYIBR and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.825	132.05 317.4	122.7 (CTAF)







CATEGORY	A	B	C	D
LPV DA	1632-1 200 (200-1)			
LNAV/ VNAV DA	1882-1½ 450 (500-1½)			
LNAV MDA	1840-1 408 (500-1)		1840-1¼ 408 (500-1¼)	
CIRCLING	1900-1 466 (500-1)		2140-2 706 (800-2)	2140-2¼ 706 (800-2¼)

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB DXX 341	APP CRS 306°	Rwy Idg 3301 TDZE 1082 Apt Elev 1082

NDB or GPS RWY 31

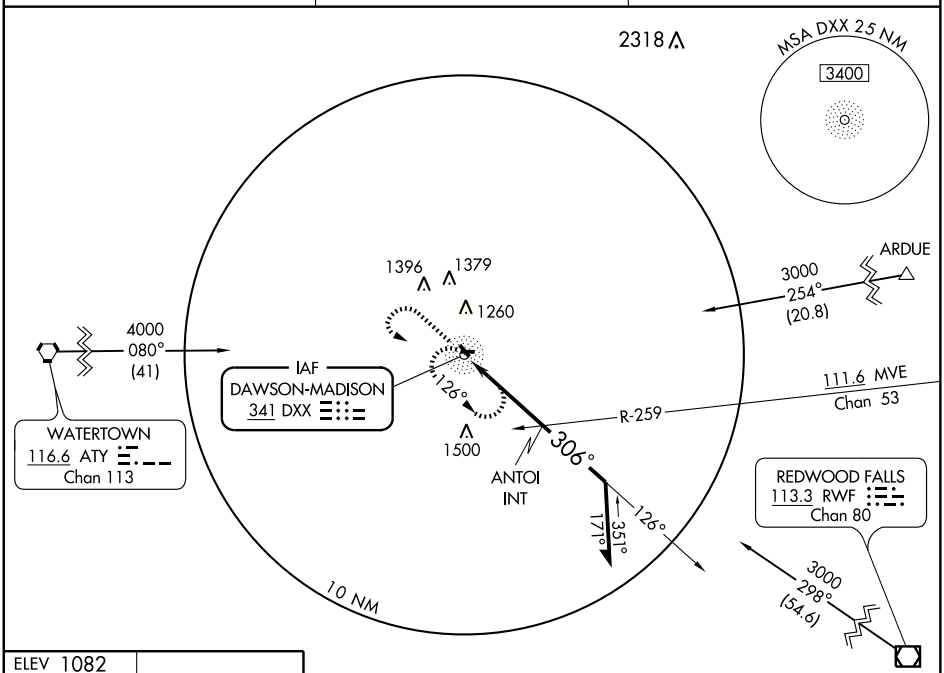
MADISON/LAC QUI PARLE COUNTY (DXX)

NA

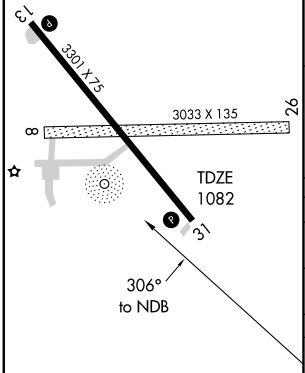
Activate MIRL Rwy 13-31-CTAF.

MISSED APPROACH: Climb to 2200 then climbing left turn to 2600 direct DXX NDB and hold.

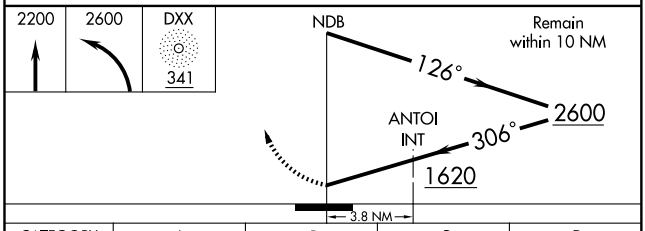
AWOS-3	MINNEAPOLIS CENTER	UNICOM
341	128.5 306.2	122.8 (CTAF) L



ELEV 1082



MIRL Rwy 13-31 L



CATEGORY	A	B	C	D
S-31	1620-1	538 (600-1)	1620-1½ 538 (600-1½)	NA
CIRCLING	1620-1	538 (600-1)	1620-1½ 538 (600-1½)	NA
ANTOI FIX MINIMA				
S-31	1500-1	418 (500-1)	1500-1¼ 418 (500-1¼)	NA
CIRCLING	1560-1	478 (500-1)	1560-1½ 478 (500-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-MKT	APP CRS	Rwy Idg	6600
108.7	331°	TDZE	1020
		Apt Elev	1020

COPTER ILS or LOC RWY 33

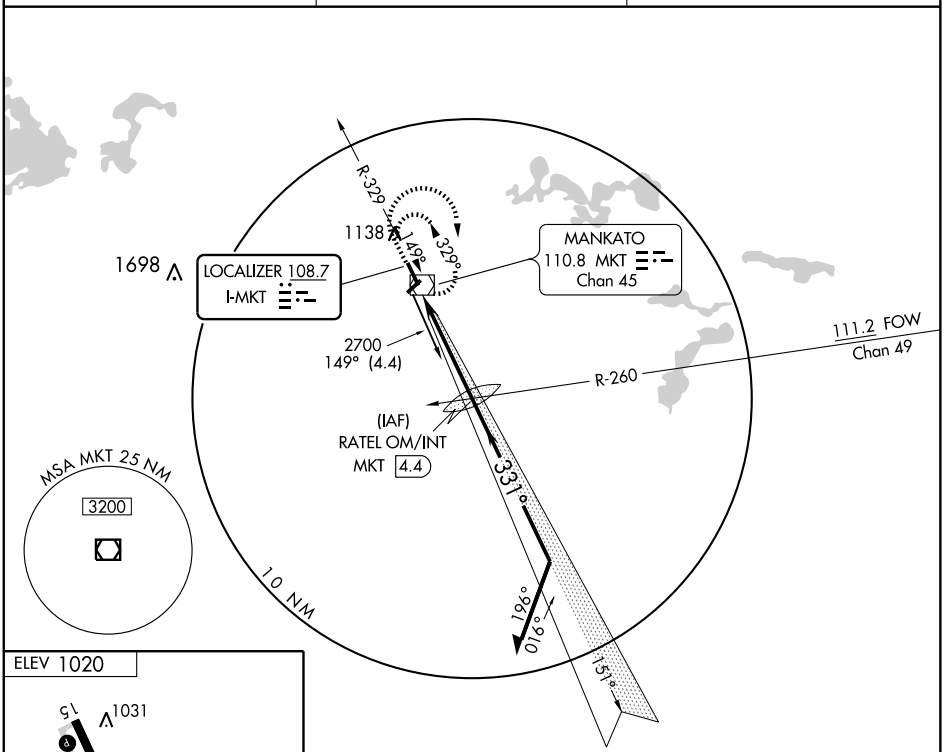
MANKATO RGNL (MKT)

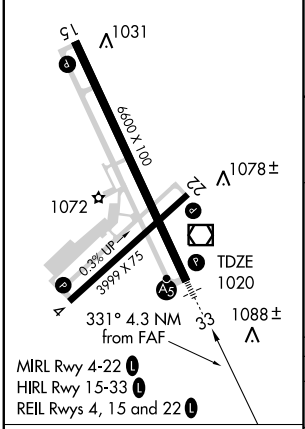
For inoperative MALSR increase visibility to ½ mile.

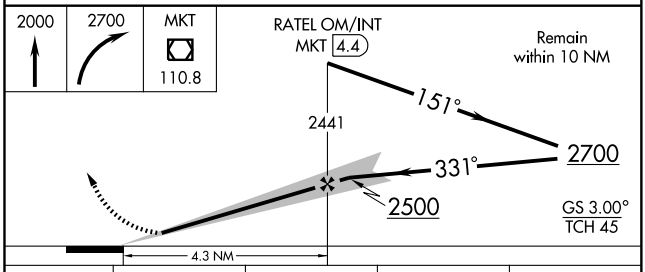
MALSR

MISSED APPROACH: Climb to 2000 then climbing right turn to 2700 direct MKT VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.8	135.0 306.9	122.725 (CTAF) L







FAF to MAP 4.3 NM					
Knots	45	60	75	90	105
Min:Sec	5:44	4:18	3:26	2:52	2:27

CATEGORY	COPTER	B	C	D
S-ILS 33	1220-¼ 200 (200-¼)	NA		
S-LOC 33	1420-¼ 400 (400-¼)	NA		
CIRCLING		NA		

NC-1. 03 JUN 2010 to 01 JUL 2010

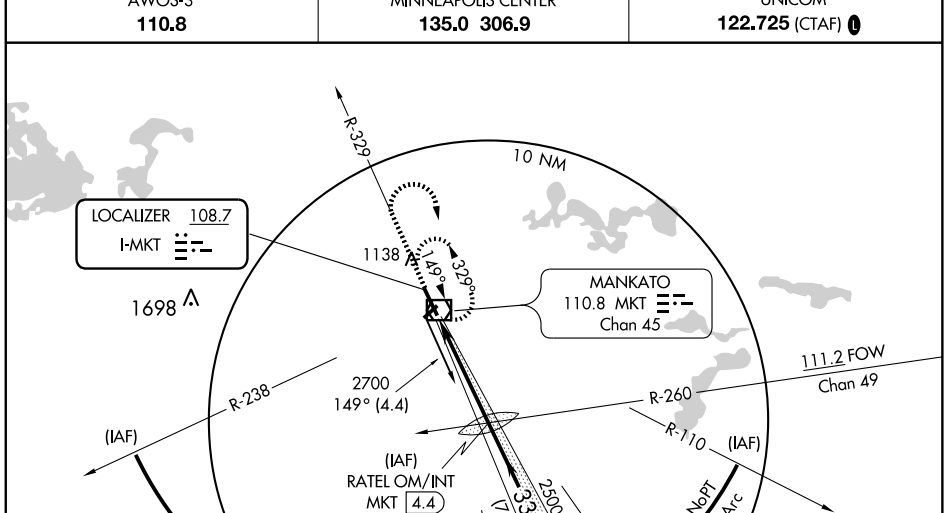
LOC I-MKT	APP CRS	Rwy Idg	6600
108.7	331°	TDZE	1020
		Apt Elev	1020

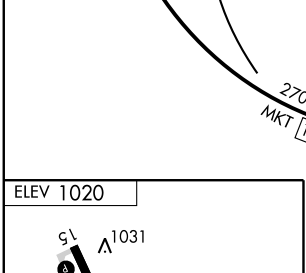
ILS RWY 33
MANKATO RGNL (MKT)

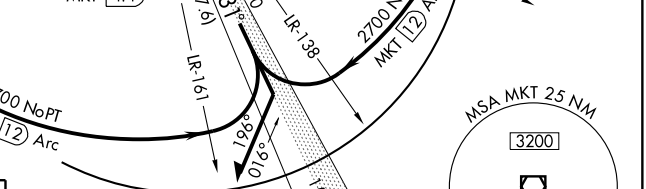
MALSR

MISSED APPROACH: Climb to 2000 then climbing right turn to 2700 direct MKT VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.8	135.0 306.9	122.725 (CTAF)







FAF to MAP 4.3 NM

Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

CATEGORY	A	B	C	D
S-ILS 33	1220-½ 200 (200-½)			
S-LOC 33	1420-½ 400 (400-½)			1420-¾ 400 (400-¾)
CIRCLING	1460-1 440 (500-1)	1480-1 460 (500-1)	1480-1½ 460 (500-1½)	1580-2 560 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

RNAV (GPS) RWY 4

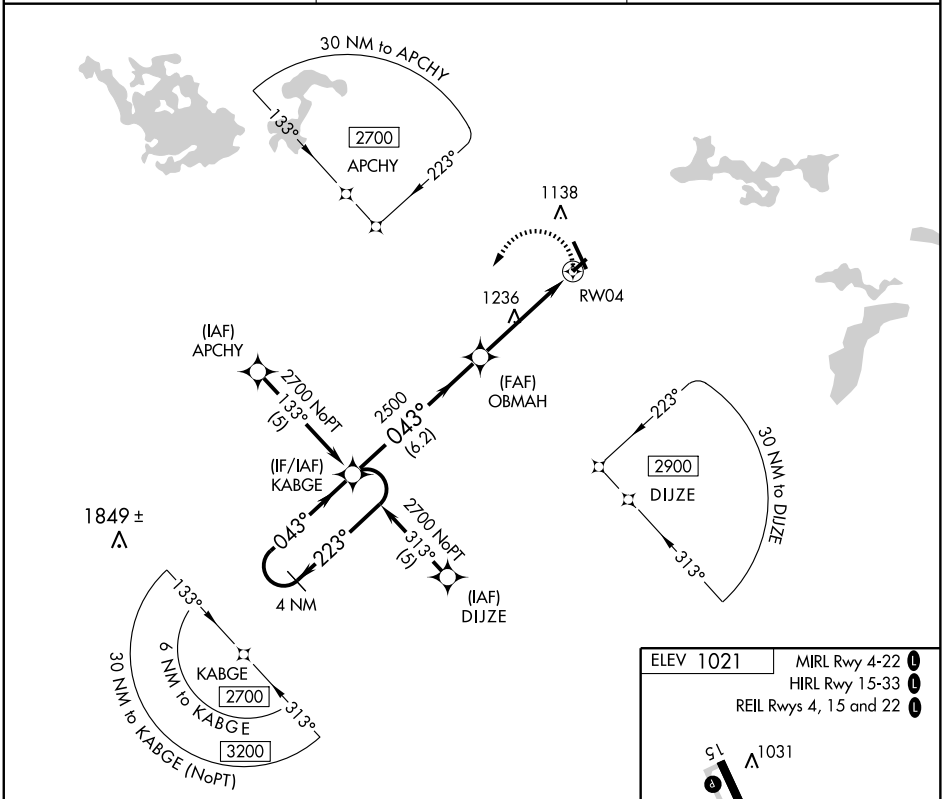
MANKATO RGNL (MKT)

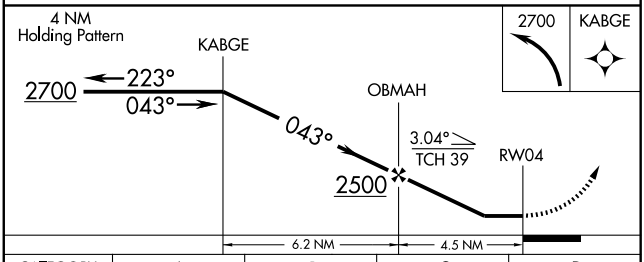
APP CRS	Rwy Idg	3999
043°	TDZE	1018
	Apt Elev	1021

DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received use Waseca altimeter setting and increase all MDA 60 feet.

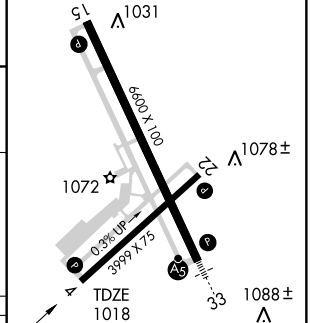
MISSED APPROACH: Climbing left turn to 2700 direct KABGE and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.8	135.0 306.9	122.725 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1540-1	522 (600-1)	1540-1½ 522 (600-1½)	NA
CIRCLING	1540-1	519 (600-1)	1540-1½ 519 (600-1½)	NA



NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 45615 W15A	APP CRS 151°	Rwy Idg 6600 TDZE 1020 Apt Elev 1021

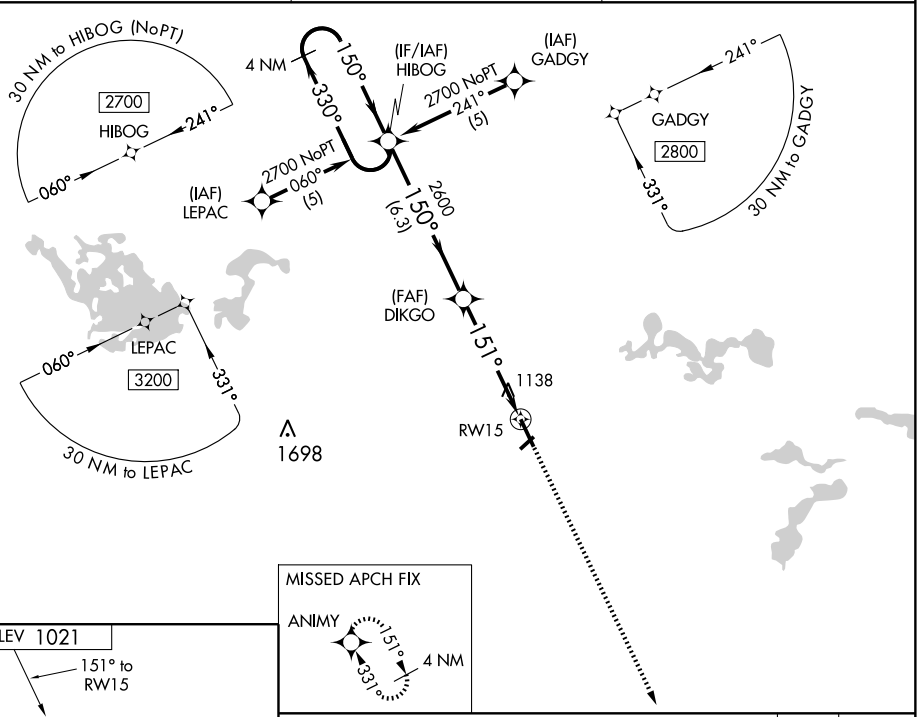
RNAV (GPS) RWY 15

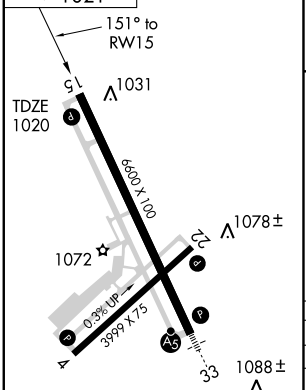
MANKATO RGNL (MKT)

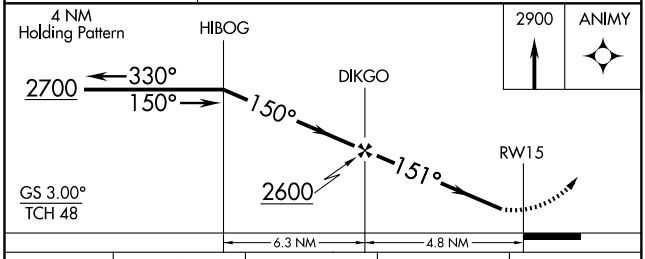
Baro-VNAV NA when using Waseca altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received use Waseca altimeter setting and increase all DA 57 feet and all MDA 60 feet and increase LPV all Cats visibility ¼ mile, and LNAV Cats C/D visibility ¼ mile.

MISSED APPROACH: Climb to 2900 direct ANIMY and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.8	135.0 306.9	122.725 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1373-1¼ 353 (400-1¼)			
LNAV/VNAV DA	1416-1½ 396 (400-1½)			
LNAV MDA	1400-1 380 (400-1)			1400-1¼ 380 (400-1¼)
CIRCLING	1440-1 419 (500-1)	1480-1 459 (500-1)	1480-1½ 459 (500-1½)	1580-2 559 (600-2)

MIRL Rwy 4-22 L
HIRL Rwy 15-33 L
REIL Rwys 4, 15 and 22 L

NC-1. 03 JUN 2010 to 01 JUL 2010

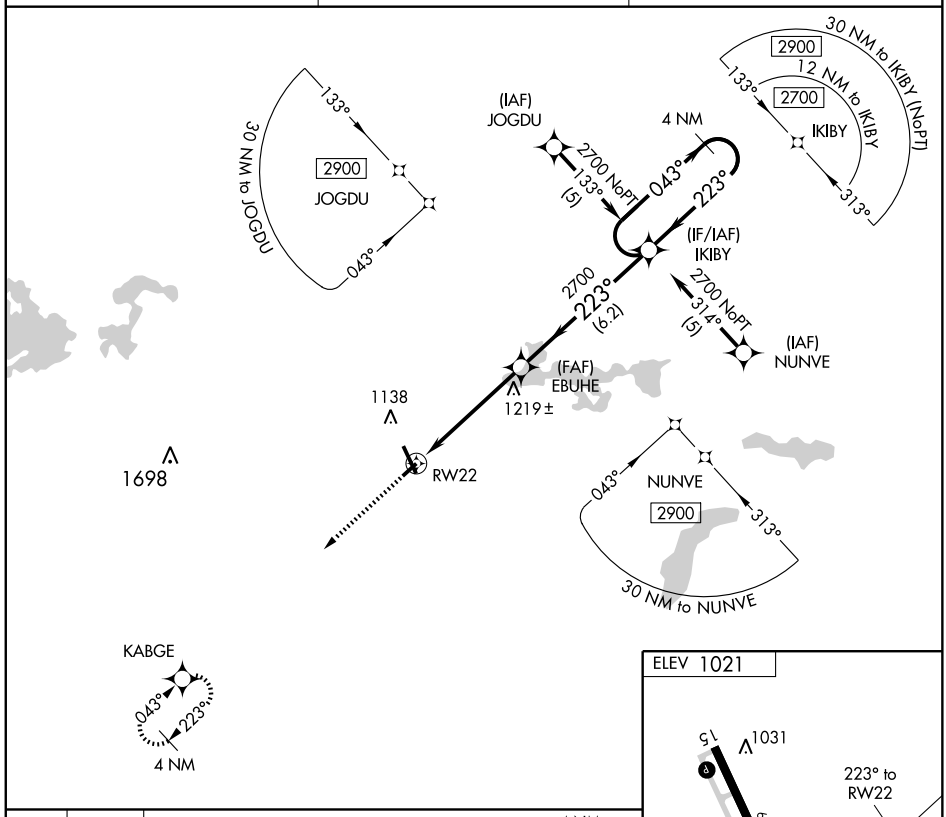
APP CRS	Rwy Idg	3999
223°	TDZE	1021
	Apt Elev	1021

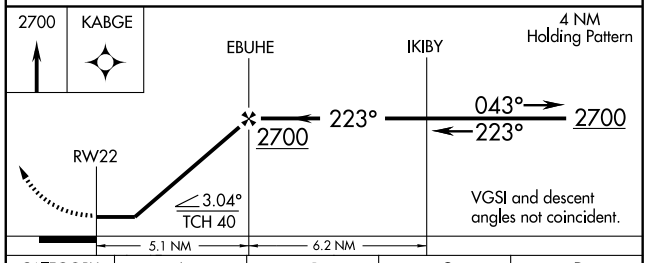
RNAV (GPS) RWY 22
MANKATO RGNL (MKT)

DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received use Waseca altimeter setting and increase all MDA 60 feet and increase LNAV Cat C visibility ¼ mile.

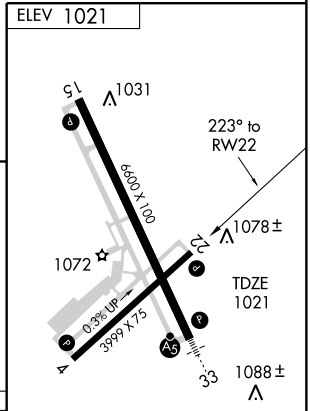
MISSED APPROACH: Climb to 2700 direct KABGE and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.8	135.0 306.9	122.725 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1480-1	459 (500-1)	1480-1¼ 459 (500-1¼)	NA
CIRCLING	1480-1	459 (500-1)	1480-1½ 459 (500-1½)	NA



MIRL Rwy 4-22 L
HIRL Rwy 15-33 L
REIL Rwys 4, 15 and 22 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	6600
CH 86315	331°	TDZE	1021
W33A		Apt Elev	1021

RNAV (GPS) RWY 33

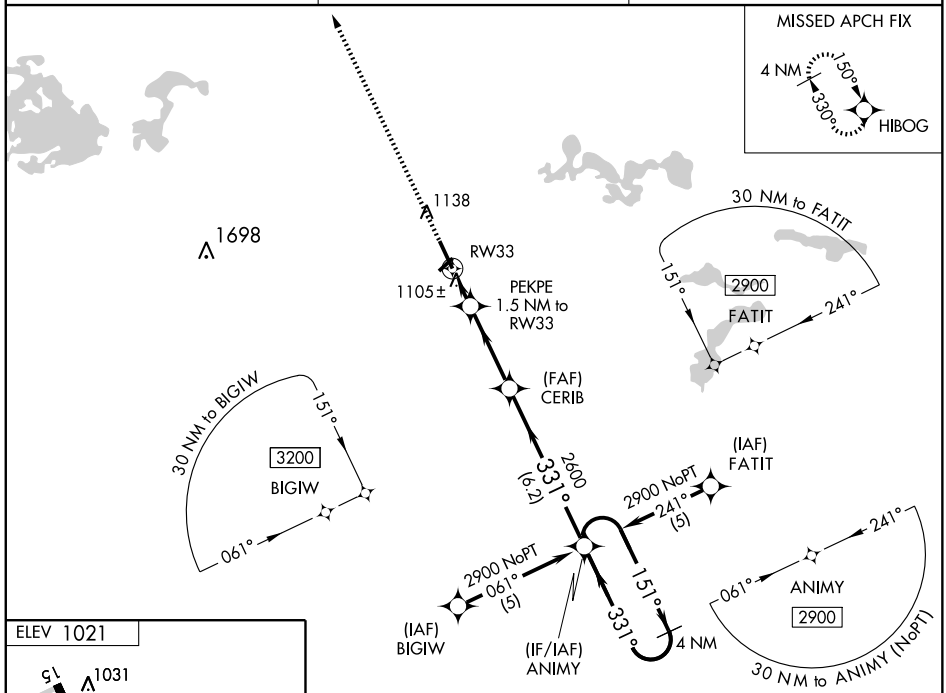
MANKATO RGNL (MKT)

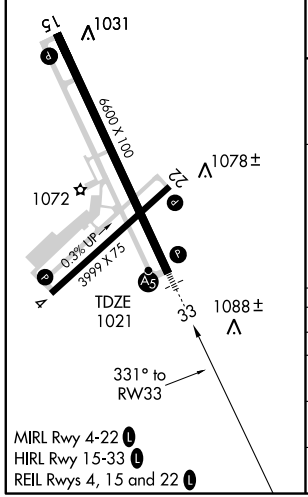
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA. When local altimeter setting not received use Waseca altimeter setting and increase all DA 57 feet, all MDA 60 feet, and increase LNAV/VNAV all Cats visibility ¼ mile. Inoperative table does not apply to LNAV Cat D. When using Waseca altimeter setting; for inoperative MALSR increase LPV all Cats visibility ½ mile and LNAV Cat D visibility ¼ mile. Baro-VNAV and VDP NA when using Waseca altimeter setting.

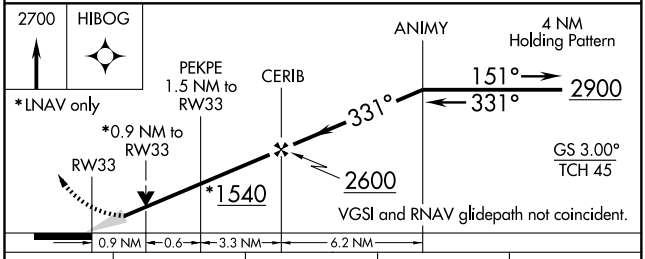
MALSR

MISSED APPROACH: Climb to 2700 direct HIBOG and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.8	135.0 306.9	122.725 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1221-½ 200 (200-½)			
LNAV/VNAV DA	1375-¾ 354 (400-¾)			
LNAV MDA	1360-½ 339 (400-½)			1360-1 339 (400-1)
CIRCLING	1440-1 419 (500-1)	1480-1 459 (500-1)	1480-1½ 459 (500-1½)	1580-2 559 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

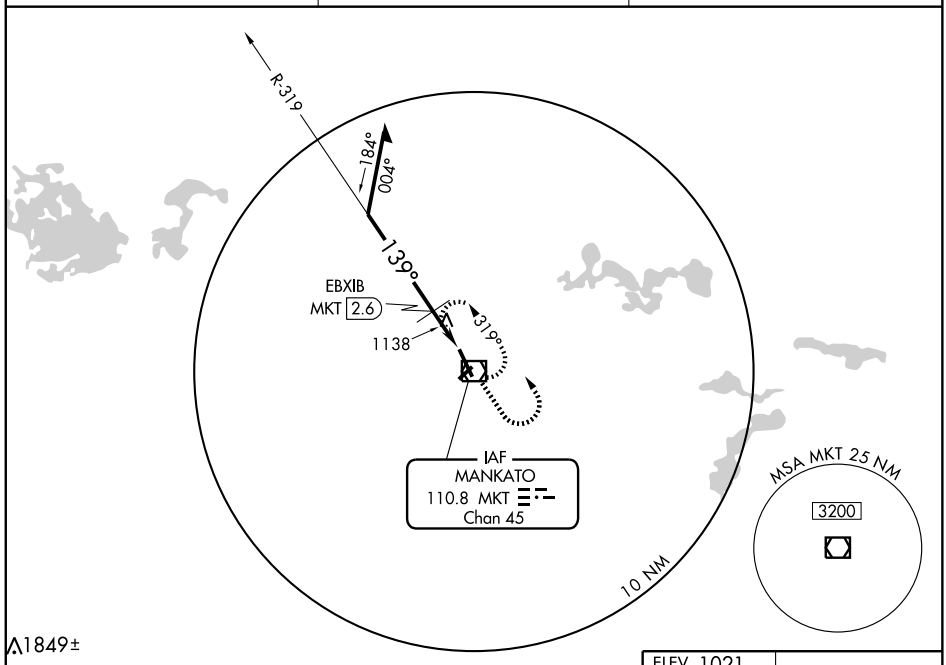
VOR/DME MKT	APP CRS	Rwy Idg	6600
110.8	139°	TDZE	1020
Chan 45		Apt Elev	1021

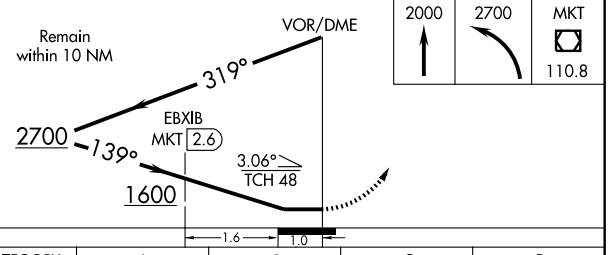
VOR RWY 15
MANKATO RGNL (MKT)

When local altimeter setting not received use Waseca altimeter setting and increase EBXIB FIX MINIMUMS all MDA 60 feet, increase Circling Cats C and D visibility ¼ mile, and increase EBXIB FIX MINIMUMS S-15 Cats C and D visibility ¼ mile.

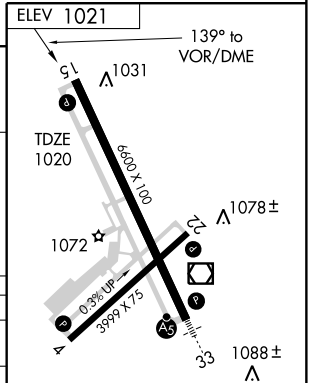
MISSED APPROACH: Climb to 2000 then climbing left turn to 2700 direct MKT VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.8	135.0 306.9	122.725 (CTAF) L





CATEGORY	A	B	C	D
S-15	1600-1 580 (600-1)		1600-1½ 580 (600-1½)	1600-1¾ 580 (600-1¾)
CIRCLING	1600-1 579 (600-1)		1600-1½ 579 (600-1½)	1600-2 579 (600-2)
EBXIB FIX MINIMUMS				
S-15	1400-1 380 (400-1)			1400-1¼ 380 (400-1¼)
CIRCLING	1440-1 419 (500-1)	1480-1 459 (500-1)	1480-1½ 459 (500-1½)	1580-2 559 (600-2)



NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME MKT	APP CRS	Rwy Idg	6600
110.8	340°	TDZE	1021
Chan 45		Apt Elev	1021

VOR RWY 33

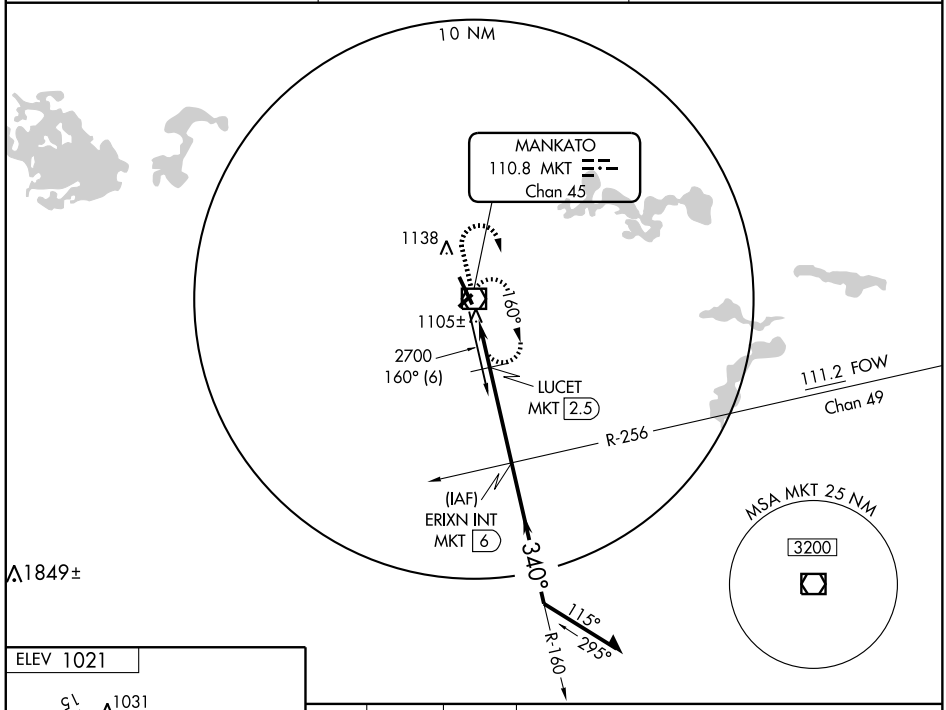
MANKATO RGNL (MKT)

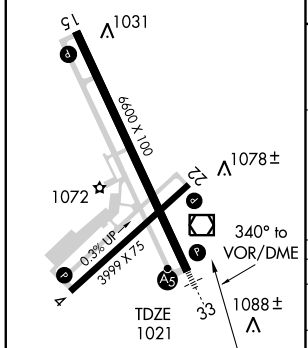
VDP NA when using Waseca altimeter setting. When local altimeter setting not received use Waseca altimeter setting and increase all MDA 60 feet, and increase S-33 Cats C and D visibility ¼ mile and LUCET FIX MINIMUMS S-33 Cat C ¼ mile. For inoperative MALSR increase LUCET FIX MINIMUMS Cat D visibility ¼ mile.

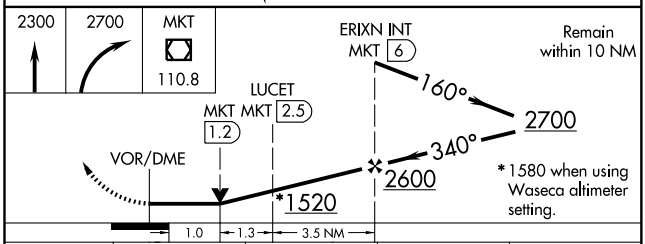
MALSR

MISSED APPROACH: Climb to 2300 then climbing right turn to 2700 direct MKT VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.8	135.0 306.9	122.725 (CTAF) L







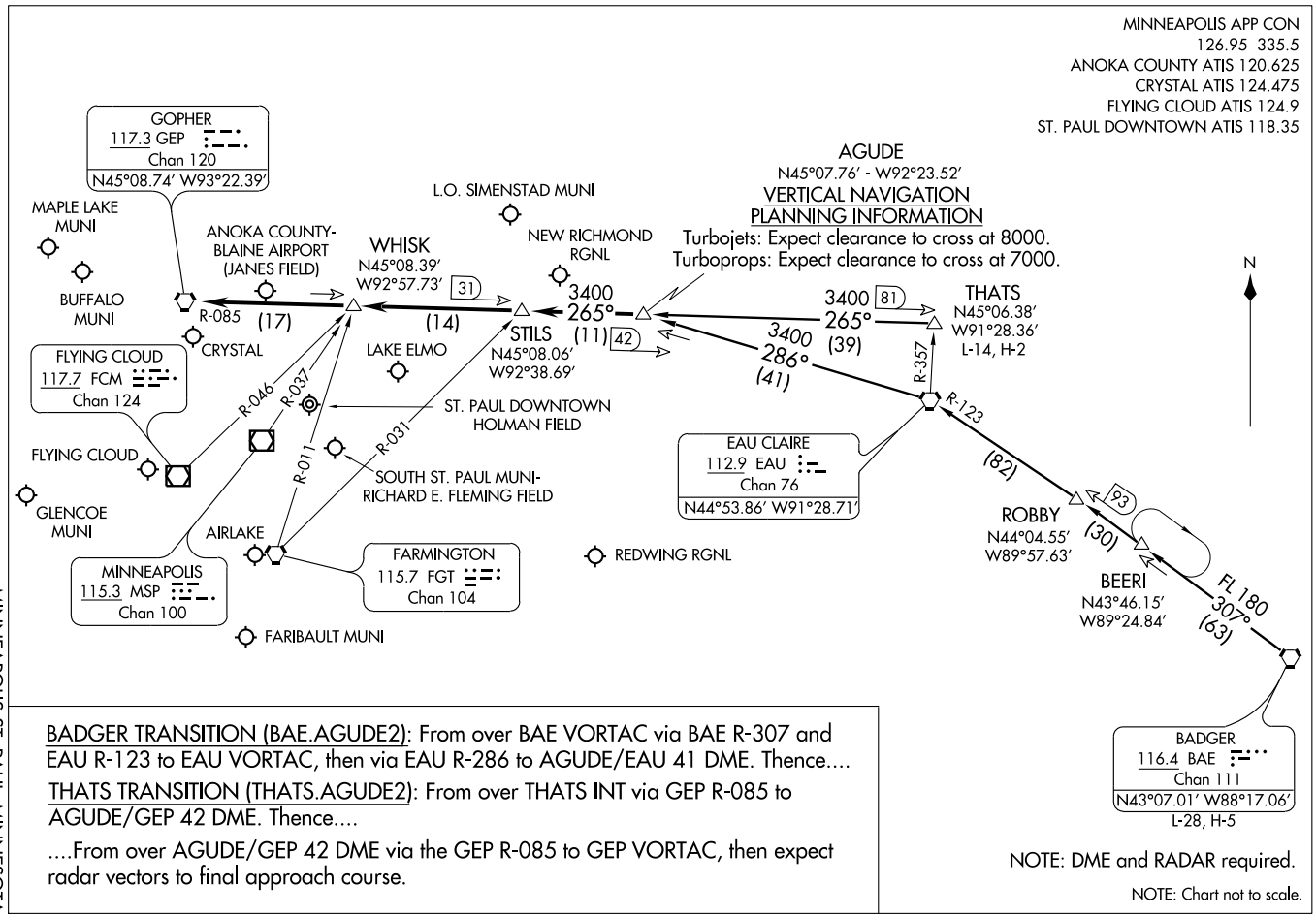
CATEGORY	A	B	C	D
S-33	1520-½ 499 (500-½)		1520-¾ 499 (500-¾)	1520-1 499 (500-1)
CIRCLING	1520-1 499 (500-1)		1520-1½ 499 (500-1½)	1580-2 559 (600-2)
LUCET FIX MINIMUMS				
S-33	1400-½ 379 (400-½)			1400-1 379 (400-1)
CIRCLING	1440-1 419 (500-1)	1480-1 459 (500-1)	1480-1½ 459 (500-1½)	1580-2 559 (600-2)

MIRL Rwy 4-22 L
HIRL Rwy 15-33 L
REIL Rwys 4, 15 and 22 L

NC-1, 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

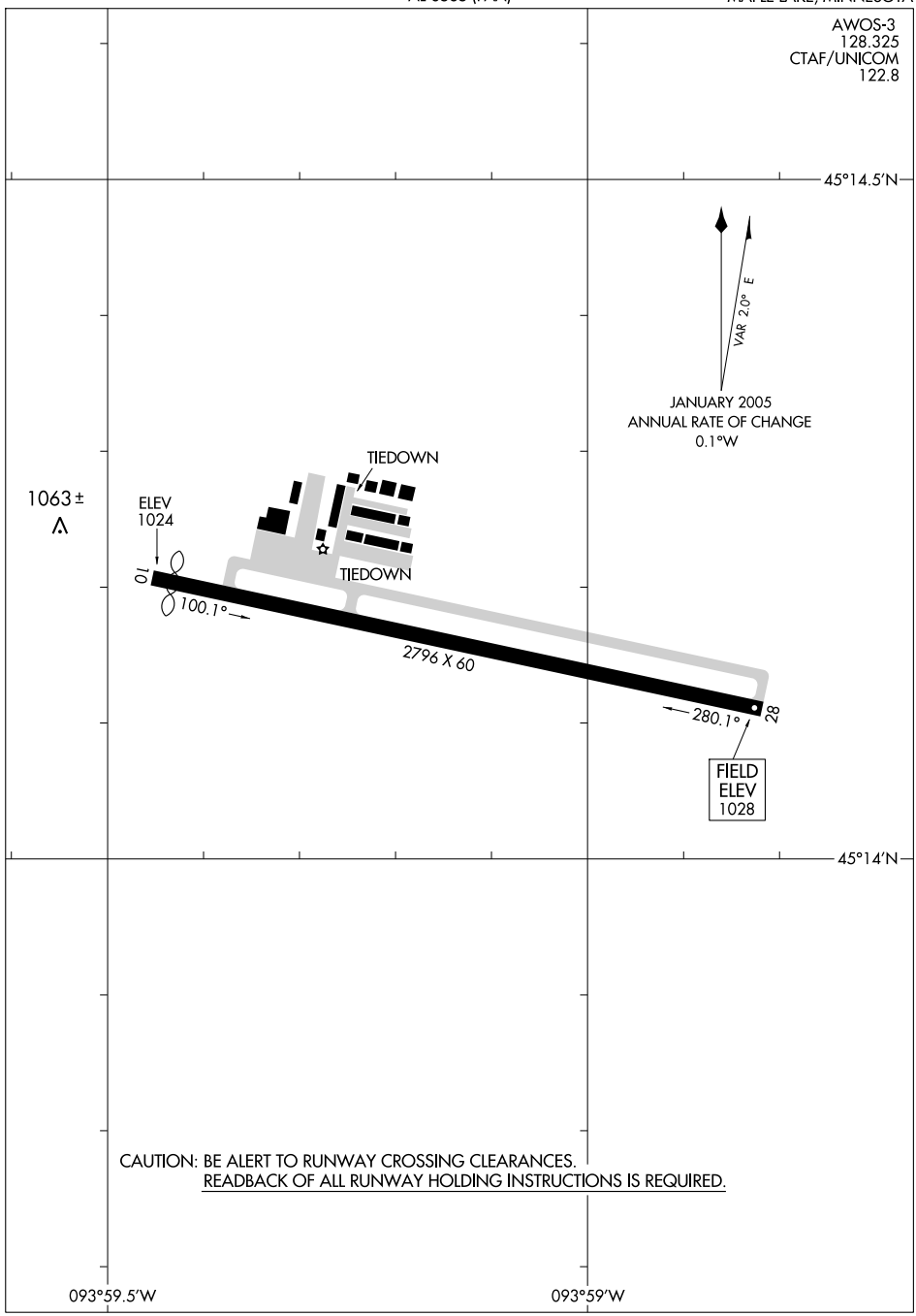
NOTE: Chart not to scale.

09071

AIRPORT DIAGRAM

AL-6585 (FAA)

MAPLE LAKE MUNI (MGG)
MAPLE LAKE, MINNESOTA



NC-1, 03 JUN 2010 to 01 JUL 2010

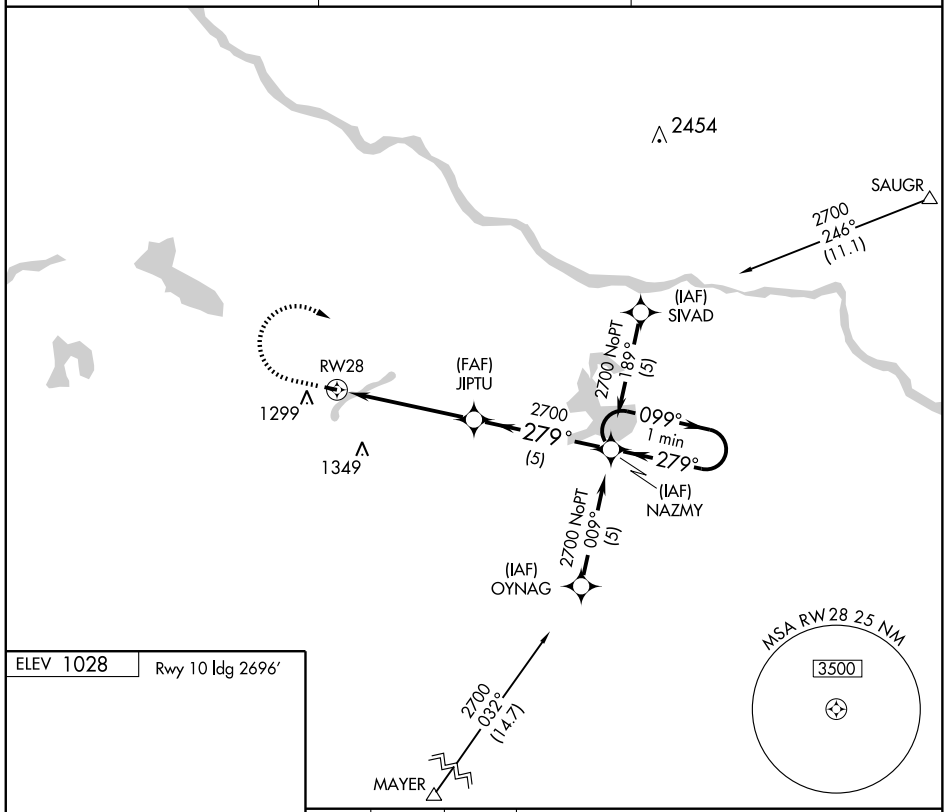
APP CRS		
279°	Rwy Idg	2796
	TDZE	1028
	Apt Elev	1028

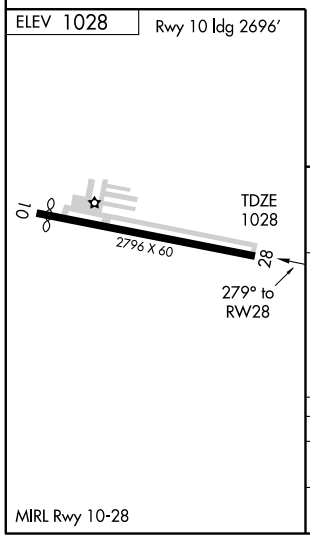
GPS RWY 28
MAPLE LAKE MUNI (MGG)

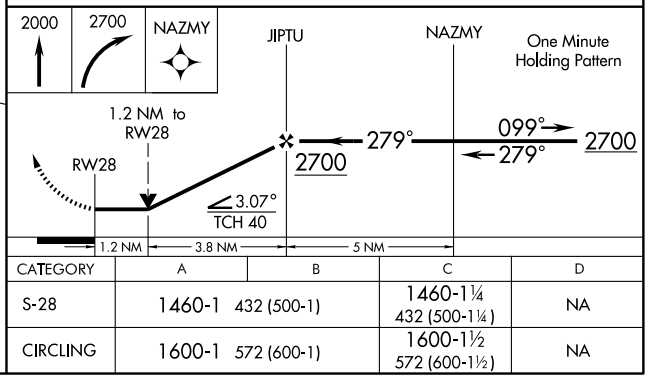
NA

MISSED APPROACH: Climb to 2000 then climbing right turn to 2700 direct NAZMY WP and hold.

AWOS-3	MINNEAPOLIS APP CON	UNICOM
128.325	126.5 357.4	122.8 (CTAF)







CATEGORY	A	B	C	D
S-28	1460-1 432 (500-1)		1460-1¼ 432 (500-1¼)	NA
CIRCLING	1600-1 572 (600-1)		1600-1½ 572 (600-1½)	NA

MIRL Rwy 10-28

NC-1. 03 JUN 2010 to 01 JUL 2010

MAPLE LAKE, MINNESOTA

AL-6585 (FAA)

VORTAC DWN	APP CRS	Rwy Idg	N/A
109.0	239°	TDZE	N/A
Chan 27		Apt Elev	1028

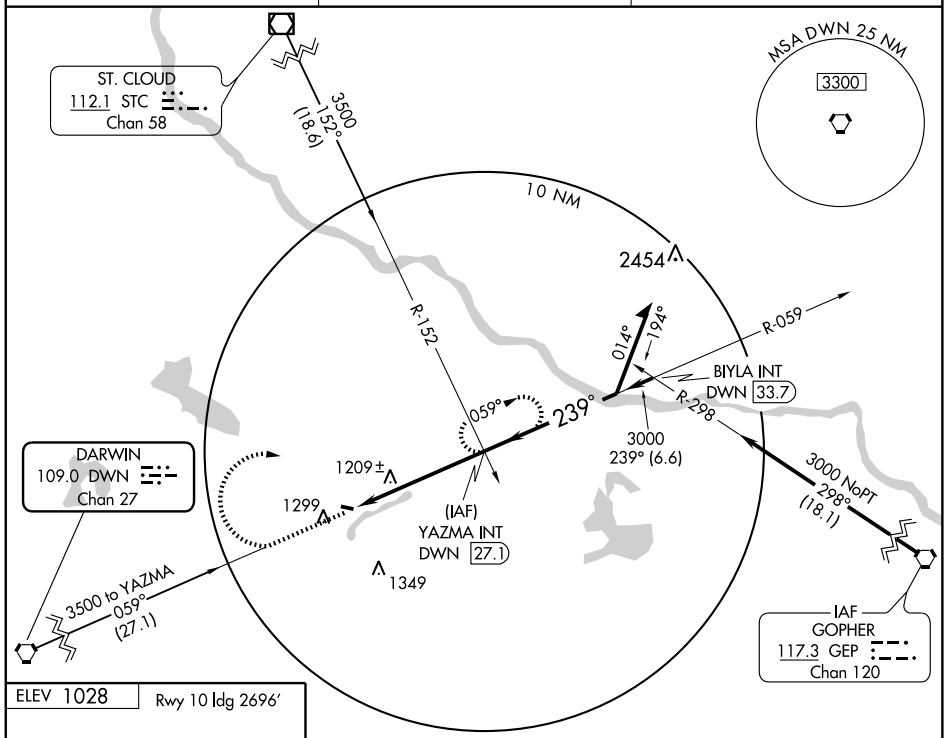
VOR-A

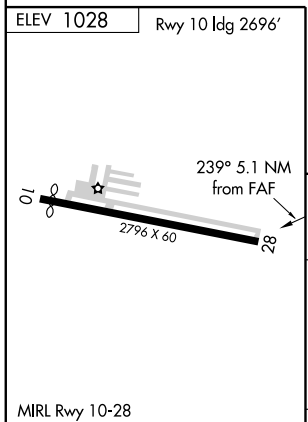
MAPLE LAKE MUNI (MGG)

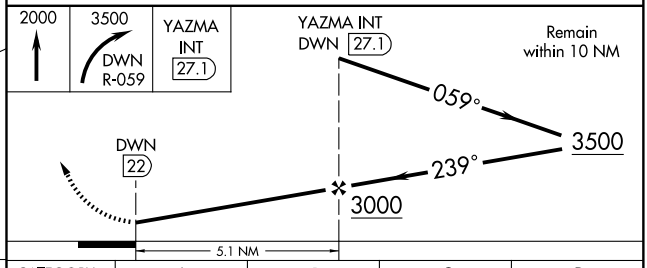
If local altimeter setting not received, use St. Cloud Regional altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climb to 2000, then climbing right turn to 3500 via DWN R-059 to YAZMA INT/27.1 DME and hold.

AWOS-3	MINNEAPOLIS APP CON	UNICOM
128.325	126.5 357.4	122.8 (CTAF)







FAF to MAP 5.1 NM					
Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

CATEGORY	A	B	C	D
CIRCLING	1660-1 632 (700-1)	1660-1¼ 632 (700-1¼)	1660-1¾ 632 (700-1¾)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	7220
305°	TDZE	1180
	Apt Elev	1180

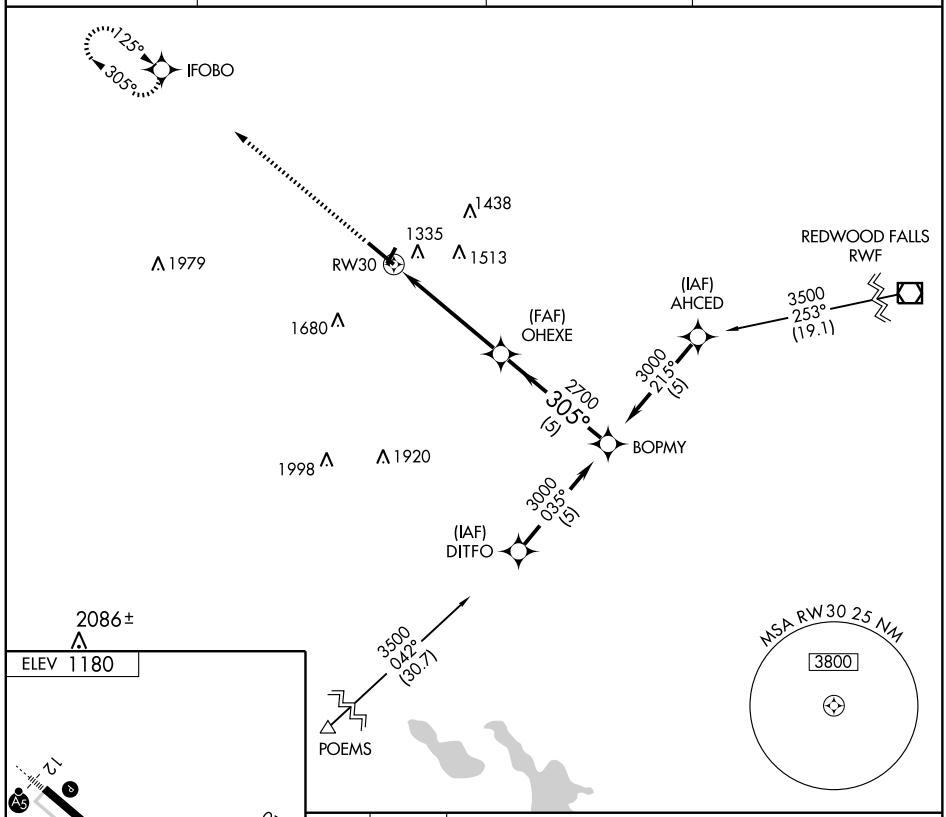
GPS RWY 30

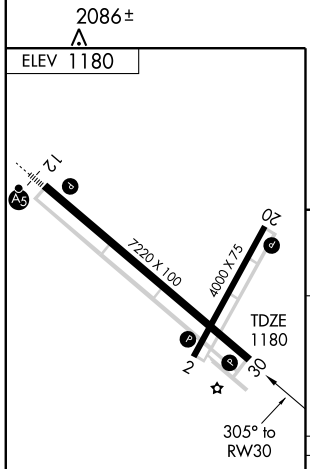
MARSHALL/ SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FIELD (MML)

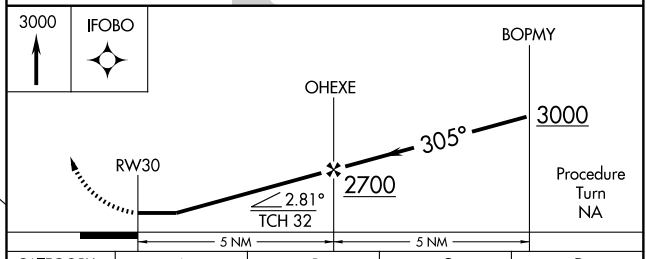
NA

MISSED APPROACH: Climb to 3000 direct IFOBO WP and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
111.0	127.1 290.2	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-30	1580-1 400 (400-1)			1580-1¼ 400 (400-1¼)
CIRCLING	1640-1 460 (500-1)		1640-1½ 460 (500-1½)	1740-2 560 (600-2)

HIRL Rwy 12-30 L
REIL Rwys 2-20 and 30 L
MIRL Rwy 2-20 L

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-GBY	APP CRS	Rwy Idg	7220
109.7	125°	TDZE	1182
		Apt Elev	1182

MARSHALL/
SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FIELD (MML)

ILS or LOC RWY 12

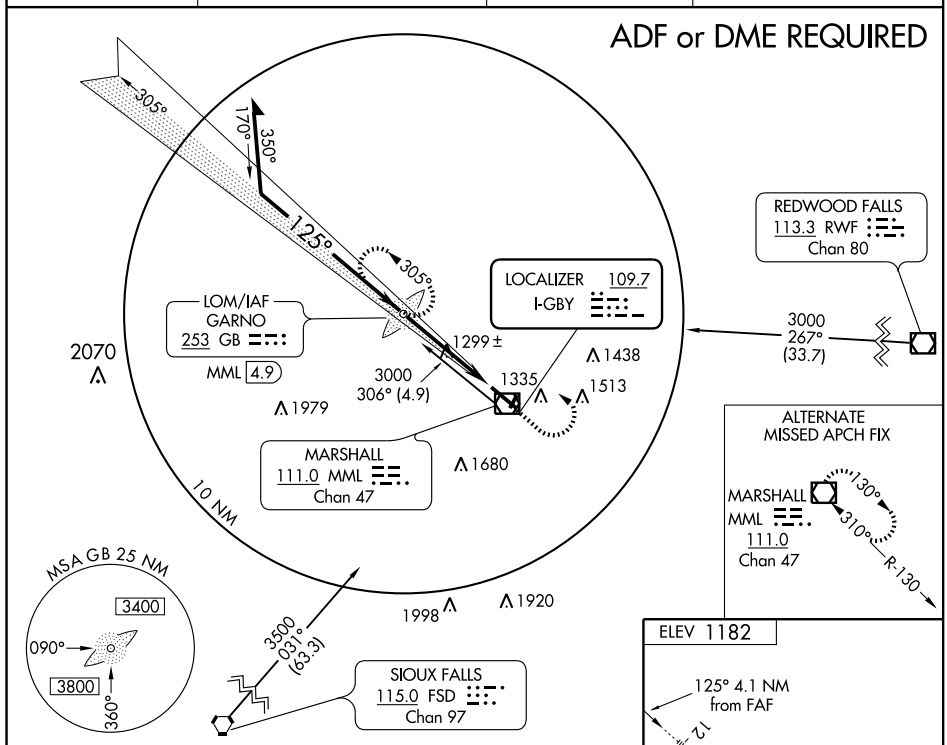
T A NA — ADF required.
When local altimeter setting not received, use Tracy Muni altimeter setting and increase all DAs/MDAs 60 feet and S-LOC 12 Cats C/D visibility ¼ mile. For inoperative MALSR when using Tracy Muni altimeter setting, increase S-ILS 12 visibility to 1 mile all Cats.

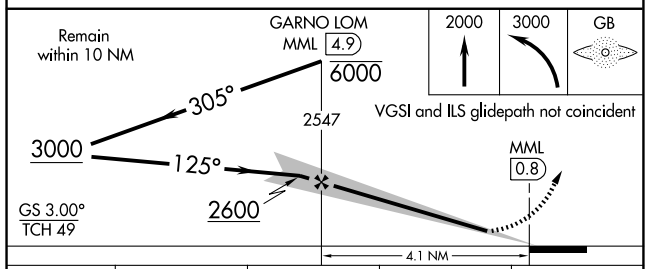
MALSR

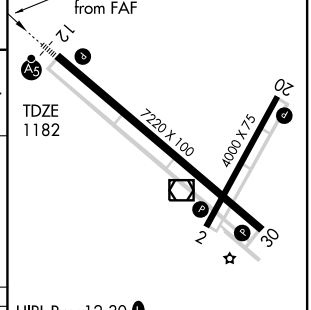
MISSED APPROACH: Climb to 2000 then climbing left turn to 3000 direct GARNO LOM/MML 4.9 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
111.0	127.1 290.2	121.725	122.8 (CTAF) L

ADF or DME REQUIRED







CATEGORY	A	B	C	D
S-ILS 12	1382-½ 200 (200-½)			
S-LOC 12	1560-½ 378 (400-½)			1560-¾ 378 (400-¾)
CIRCLING	1640-1 458 (500-1)		1640-1½ 458 (500-1½)	1740-2 558 (600-2)

HIRL Rwy 12-30 L
REIL Rwys 2-20 and 30 L
MIRL Rwy 2-20 L

FAF to MAP 4.1 NM					
Knots	60	90	120	150	180
Min:Sec	4:06	2:44	2:03	1:38	1:22

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	7220
CH 82106	125°	TDZE	1182
W12A		Apt Elev	1182

MARSHALL/
SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FIELD (MML)

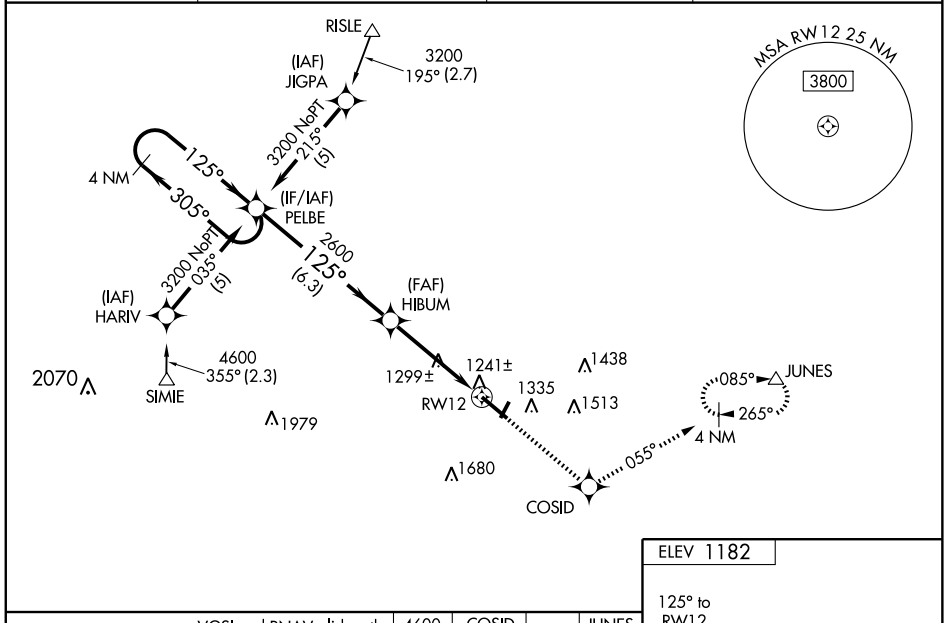
RNAV (GPS) RWY 12

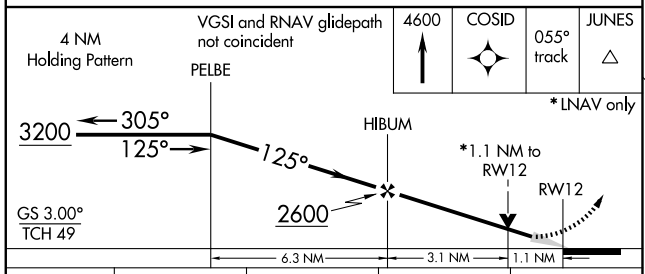
T DME/DME RNP-0.3 NA.
A When local altimeter setting not received, use Tracy Muni altimeter setting and increase all DAs/MDAs 60 feet and LNAV Cat. C visibility ¼ mile.
W VDP and Baro-VNAV NA when using Tracy Muni altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F).
For inoperative MALSR when using Tracy Muni altimeter setting, increase LPV visibility to 1 mile all Cats.
For inoperative MALSR, increase LNAV Cat. D visibility to 1¼ mile.

MALSR

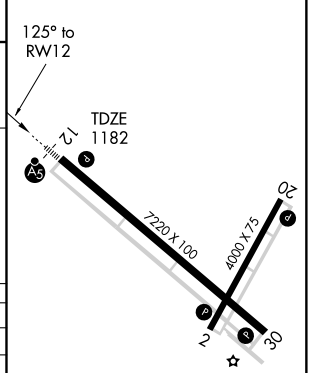
MISSED APPROACH: Climb to 4600, direct COSID and via 055° track to JUNES and hold, continue climb-in-hold to 4600.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
111.0	127.1 290.2	121.725	122.8 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	1432-½ 250 (300-½)			
LNAV/VNAV DA	1511-¾ 329 (400-¾)			
LNAV MDA	1560-½ 378 (400-½)			1560-1 378 (400-1)
CIRCLING	1640-1 458 (500-1)		1640-1½ 458 (500-1½)	1740-2 558 (600-2)



HIRL Rwy 12-30 L
REIL Rwys 2-20 and 30 L
MIRL Rwy 2-20 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME MML	APP CRS	Rwy Idg	7220
111.0	298°	TDZE	1180
Chan 47		Apt Elev	1180

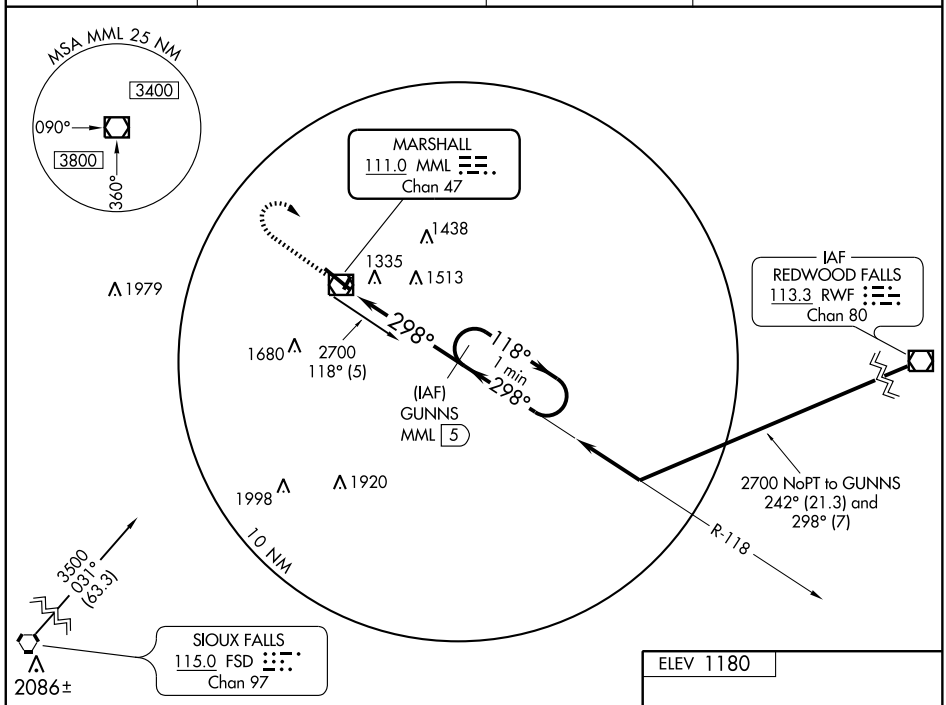
MARSHALL/
SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FIELD (MML)

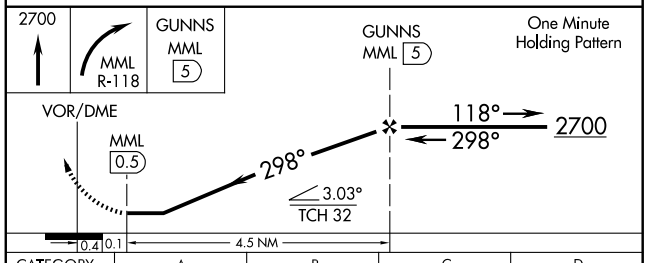
VOR/DME RWY 30

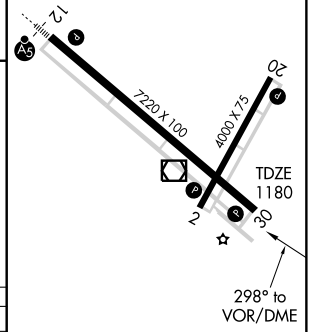
T
ANA
When local altimeter setting not received, use Tracy altimeter setting and increase all MDA 60 feet. Increase S-30 Cat D visibility ¼ mile.

MISSED APPROACH: Climb to 2700, then right turn via MML VOR/DME R-118 to GUNNS/MML 5 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
111.0	127.1 290.2	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-30	1600-1 420 (500-1)		1600-1¼ 420 (500-1¼)	
CIRCLING	1640-1 460 (500-1)		1640-1½ 460 (500-1½)	1740-2 560 (600-2)

HIRL Rwy 12-30 L
REIL Rwys 2-20 and 30 L
MIRL Rwy 2-20 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME MML	APP CRS	Rwy Idg	7220
111.0	130°	TDZE	1182
Chan 47		Apt Elev	1182

MARSHALL/
SOUTHWEST MINNESOTA RGNL MARSHALL/RYAN FIELD (MML)

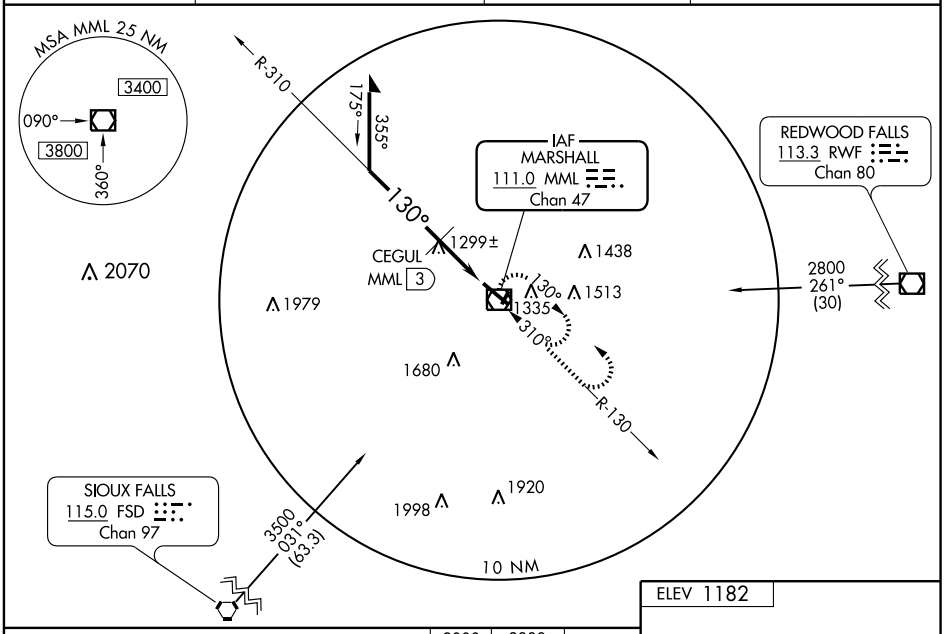
VOR RWY 12

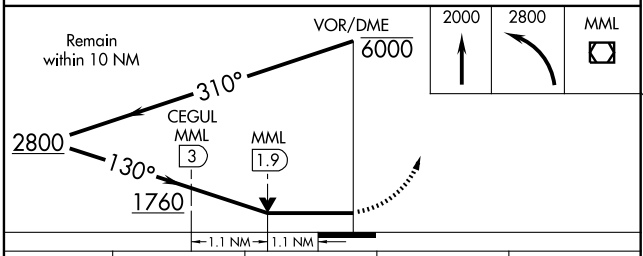
For inoperative MALSR, increase CEGUL FIX MINIMUMS S-12 Cat. D visibility to 1¼ mile.
When local altimeter setting not received, use Tracy Muni altimeter setting and increase all MDAs 60 feet and S-12 Cat. C/D visibility ¼ mile; increase Circling Cat. C visibiltiy ¼ mile. Increase CEGUL FIX MINIMUMS S-12 Cat. C visibility to ¾ mile.
VDP NA when using Tracy Muni altimeter setting.

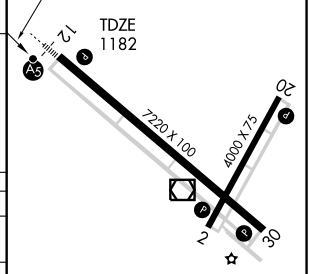
MALSR

MISSED APPROACH: Climb to 2000, then climbing left turn to 2800 direct MML VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
111.0	127.1 290.2	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-12	1760-½ 578 (600-½)		1760-1 578 (600-1)	1760-1¼ 578 (600-1¼)
CIRCLING	1760-1 578 (600-1)		1760-1½ 578 (600-1½)	1760-2 578 (600-2)
CEGUL FIX MINIMUMS				
S-12	1560-½ 378 (400-½)			1560-1 378 (400-1)
CIRCLING	1640-1 458 (500-1)		1640-1½ 458 (500-1½)	1740-2 558 (600-2)

HIRL Rwy 12-30 L
REIL Rwys 2-20 and 30 L
MIRL Rwy 2-20 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS		
139°	Rwy Idg	3400
	TDZE	1228
	Apt Elev	1228

RNAV (GPS) RWY 14

MC GREGOR/ISEDOR IVERSON (HZX)

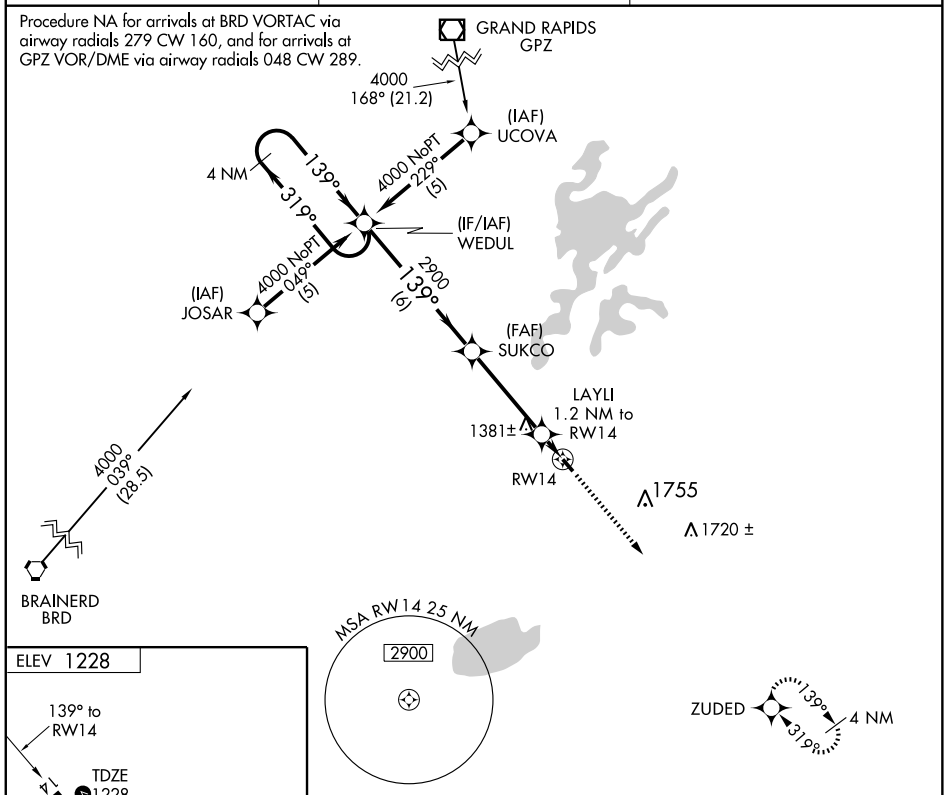
NA

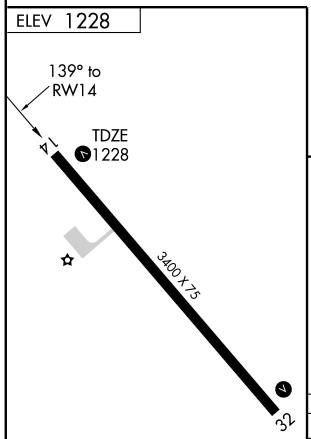
DME/DME RNP- 0.3 NA.
If local altimeter setting not received, use Aitkin altimeter setting and increase all MDAs 40 feet.
Procedure NA at night.

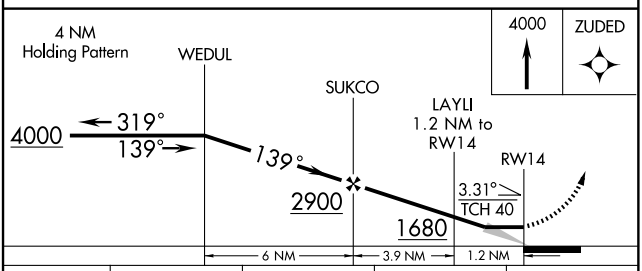
MISSED APPROACH: Climb to 4000 direct ZUDED and hold.

ASOS-3	MINNEAPOLIS CENTER	CTAF
119.575	127.9 281.45	122.9 L

Procedure NA for arrivals at BRD VORTAC via airway radials 279 CW 160, and for arrivals at GPZ VOR/DME via airway radials 048 CW 289.







CATEGORY	A	B	C	D
LNAV MDA	1580-1 352 (400-1)		NA	
CIRCLING	1660-1 432 (500-1)	1680-1 452 (500-1)	NA	

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3400
319°	TDZE	1226
	Apt Elev	1228

RNAV (GPS) RWY 32

MC GREGOR/ ISEDOR IVERSON (HZX)

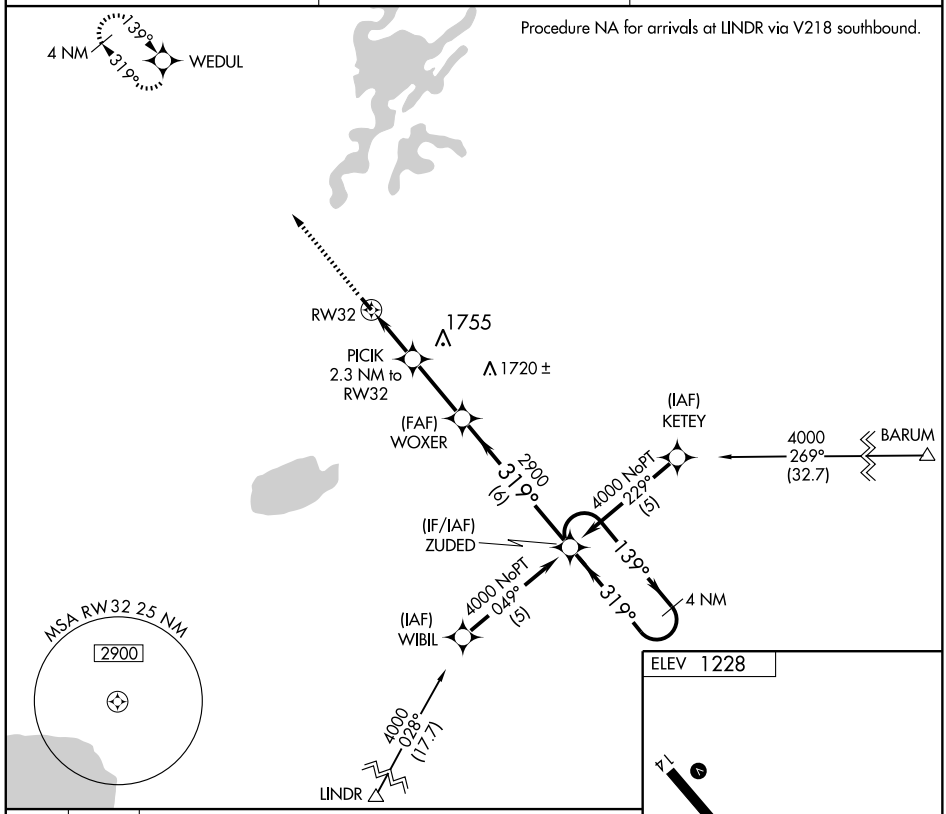
NA

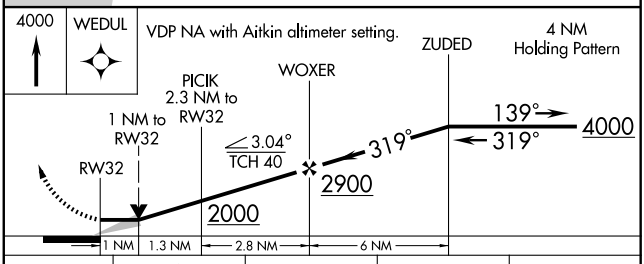
DME/DME RNP- 0.3 NA.
If local altimeter setting not received, use Aitkin altimeter setting and increase all MDAs 40 feet.
Procedure NA at night.

MISSED APPROACH: Climb to 4000 direct WEDUL and hold.

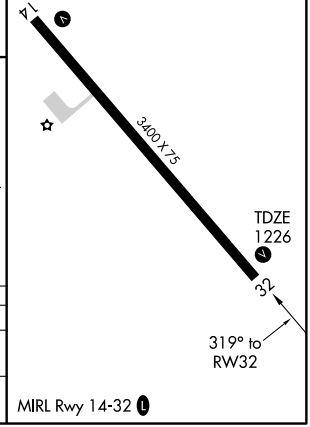
ASOS-3	MINNEAPOLIS CENTER	CTAF
119.575	127.9 281.45	122.9 L

Procedure NA for arrivals at LINDR via V218 southbound.





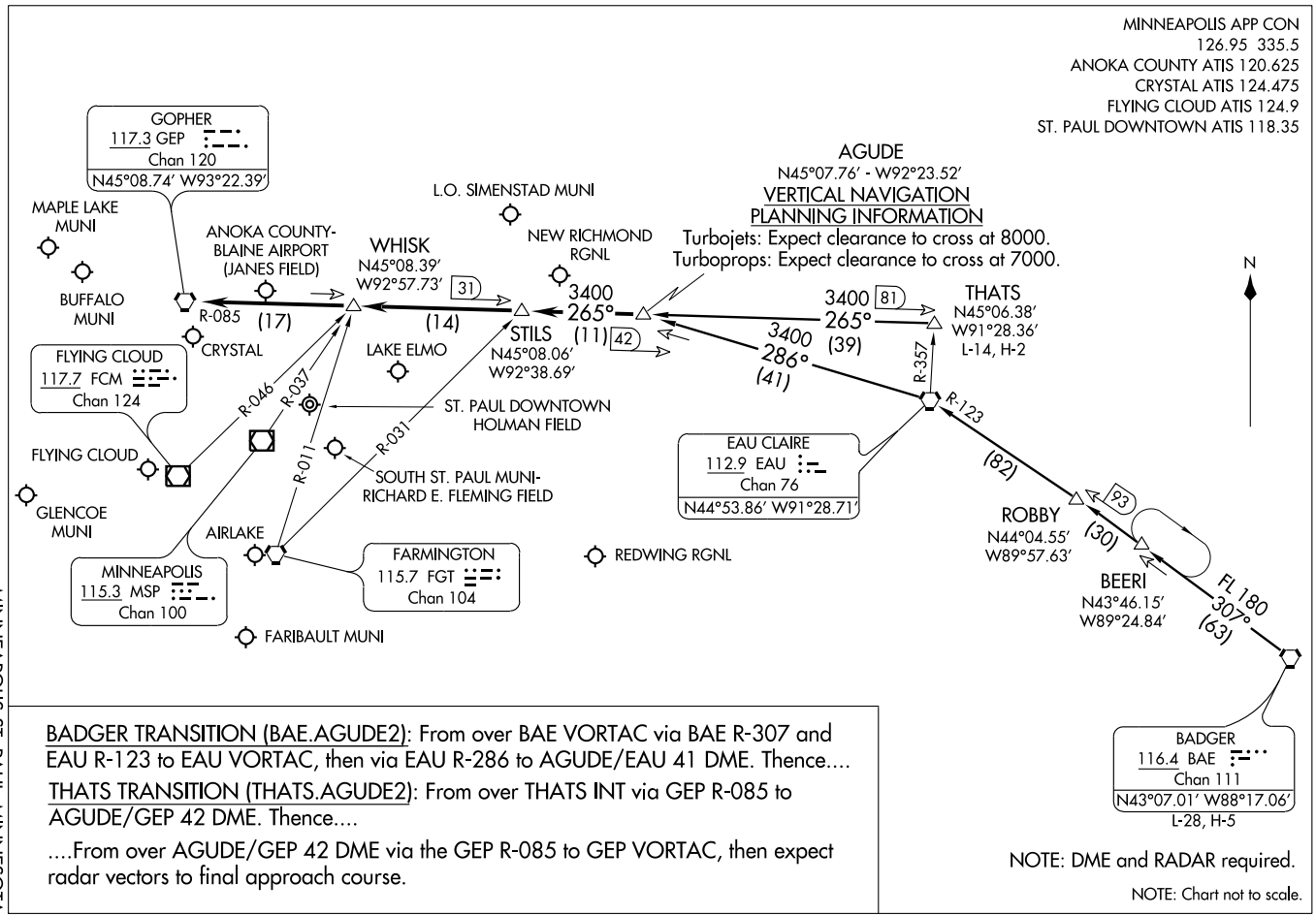
CATEGORY	A	B	C	D
LNAV MDA	1600-1 374 (400-1)		NA	
CIRCLING	1660-1 432 (500-1)	1680-1 452 (500-1)	NA	



NC-1, 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

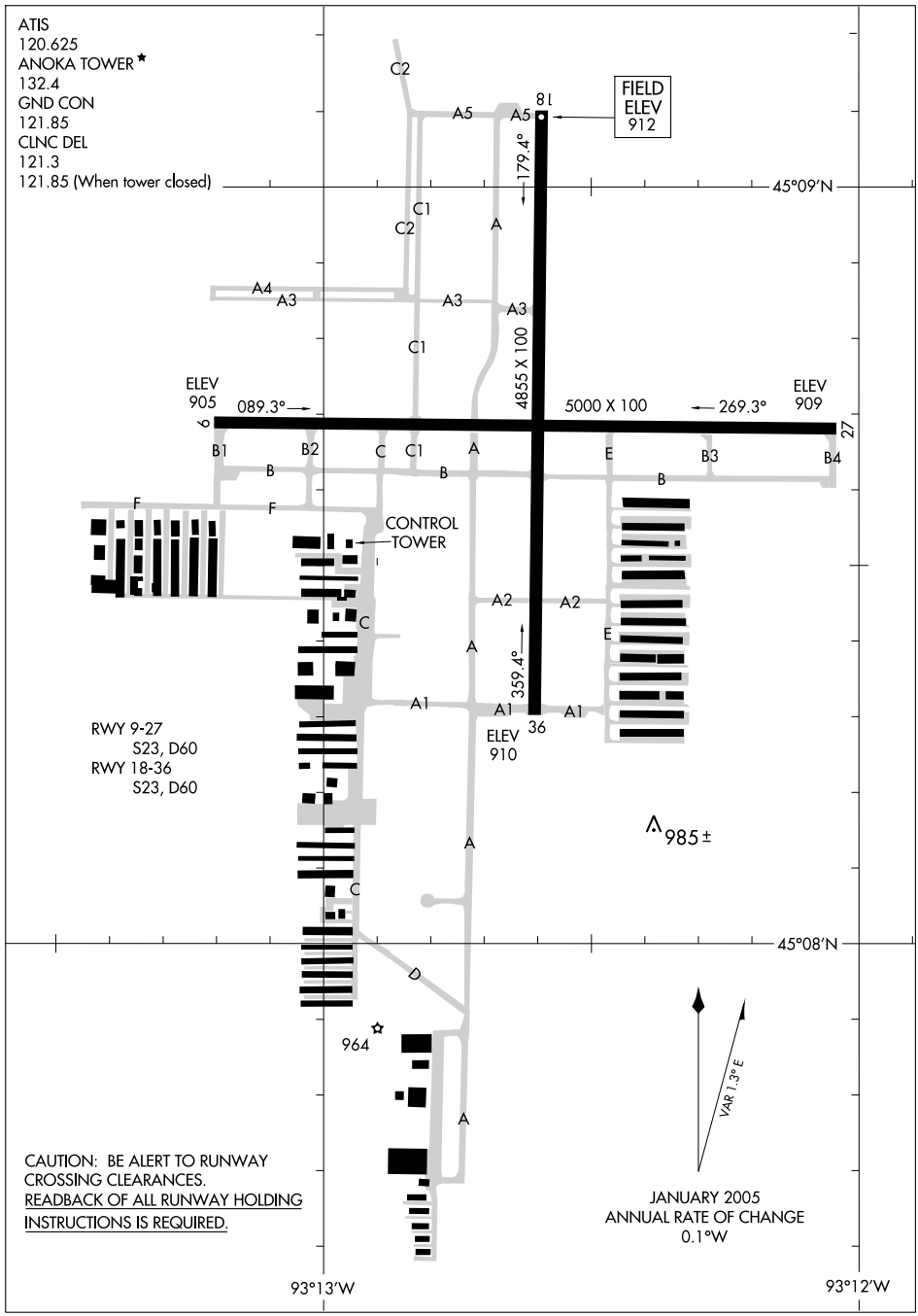
09351

MINNEAPOLIS/ANOKA COUNTY- BLAINE AIRPORT (JANES FIELD) (ANE)

AIRPORT DIAGRAM

AL-5202 (FAA)

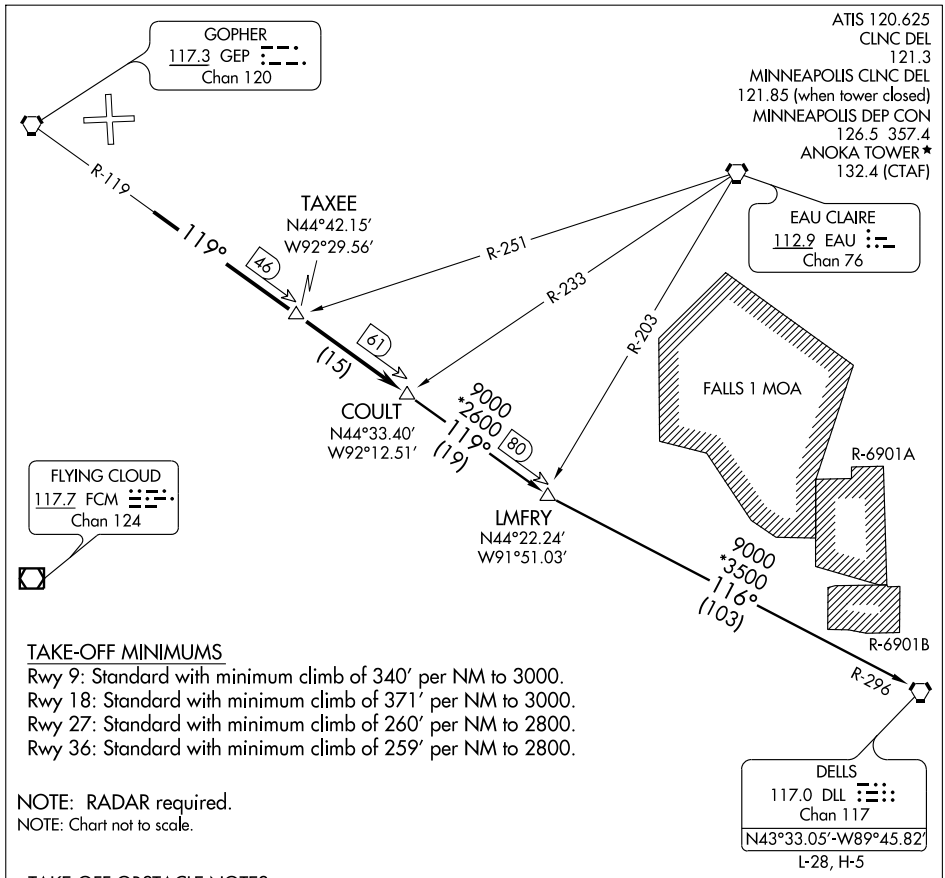
MINNEAPOLIS, MINNESOTA



NC-1, 03 JUN 2010 to 01 JUL 2010

COULT THREE DEPARTURE

SL-5202 (FAA) MINNEAPOLIS, MINNESOTA



TAKE-OFF MINIMUMS

Rwy 9: Standard with minimum climb of 340′ per NM to 3000.
Rwy 18: Standard with minimum climb of 371′ per NM to 3000.
Rwy 27: Standard with minimum climb of 260′ per NM to 2800.
Rwy 36: Standard with minimum climb of 259′ per NM to 2800.

NOTE: RADAR required.
NOTE: Chart not to scale.

TAKE-OFF OBSTACLE NOTES

RWY 9: Tank and multiple trees beginning 822′ from DER, 619′ right of centerline, up to 170′ AGL/1082′ MSL. Trees 2248′ from DER, 966′ left of centerline, 100′ AGL/1009′ MSL.
RWY18: Aircraft on taxiway 36′ from DER, 481′ right of centerline, up to 21′ AGL/928′ MSL. Multiple trees beginning 406′ from DER, 287′ left of centerline, up to 49′ AGL/959′ MSL. Tower 5016′drom DER, 201′ left of centerline, 120′ AGL/1078′ MSL.
RWY 27: Multiple trees beginning 7′ from DER, 235′ right of centerline, up to 83′ AGL/983′ MSL. Multiple trees beginning 558′ from DER, 406′ left of centerline, up to 57′ AGL/957′ MSL.
RWY 36: Multiple trees beginning 86′ from DER, 10′ right of centerline, up to 87′ AGL/987′ MSL. Multiple trees beginning 1282′ from DER, 53′ left of centerline, up to 70′ AGL/970′ MSL.

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to intercept GEP R-119 to COULT INT/GEP 61 DME, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

DELLS TRANSITION (COULT3.DLL): From over COULT INT via GEP R-119 to LMFRY, then via DLL R-296 to DLL VORTAC.

NC-1, 03 JUN 2010 to 01 JUL 2010

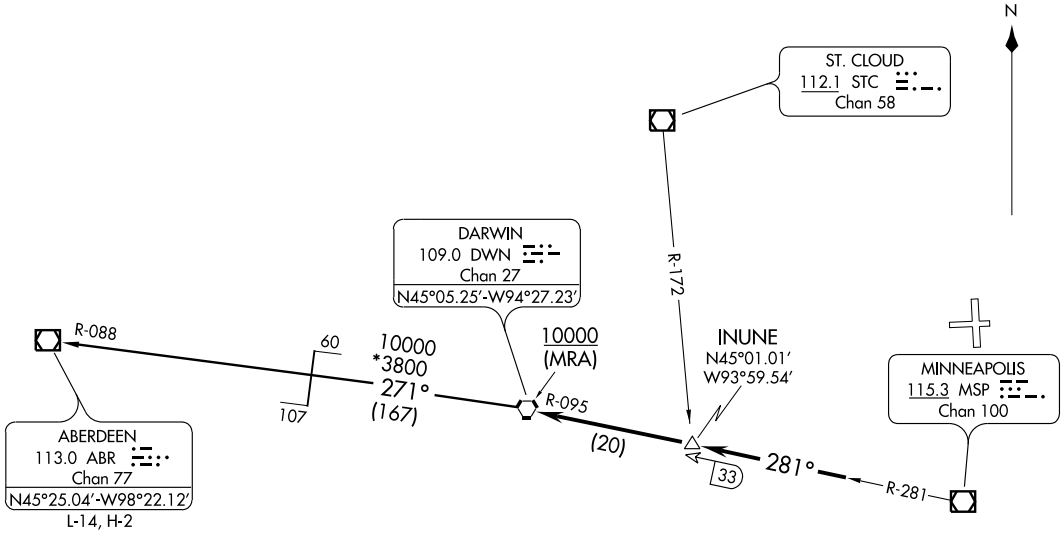
DARWIN THREE DEPARTURE (DWN3.DWN) 10042

MINNEAPOLIS/ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)

SL-5202 (FAA)

MINNEAPOLIS, MINNESOTA

ATIS 120.625
CLNC DEL
121.3
MINNEAPOLIS CLNC DEL
121.85 (when tower closed)
MINNEAPOLIS DEP CON
126.5 357.4



TAKE-OFF MINIMUMS

Rwy 9: Standard with minimum climb of 340′ per NM to 3000.
Rwy 18: Standard with minimum climb of 371′ per NM to 3000.
Rwy 27: Standard with minimum climb of 260′ per NM to 2800.
Rwy 36: Standard with minimum climb of 259′ per NM to 2800.

NOTE: RADAR required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-281 and DWN R-095 to DWN VORTAC, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

ABERDEEN TRANSITION (DWN2.ABR): From over DWN VORTAC via DWN R-271 and ABR R-088 to ABR VOR/DME.

TAKE-OFF OBSTACLE NOTES

RWY 9: Tank and multiple trees 822′ from DER, 619′ right of centerline, up to 170′ AGL/1082′ MSL.
Trees 2248′ from DER, 966′ left of centerline, 100′ AGL/1009′ MSL.

RWY 18: Aircraft on taxiway 36′ from DER, 481′ right of centerline, up to 21′ AGL/928′ MSL.
Multiple trees beginning 406′ from DER, 287′ left of centerline, up to 49′ AGL/959′ MSL.
Tower 5016′ from DER, 201′ left of centerline, 120′ AGL/1078′ MSL.

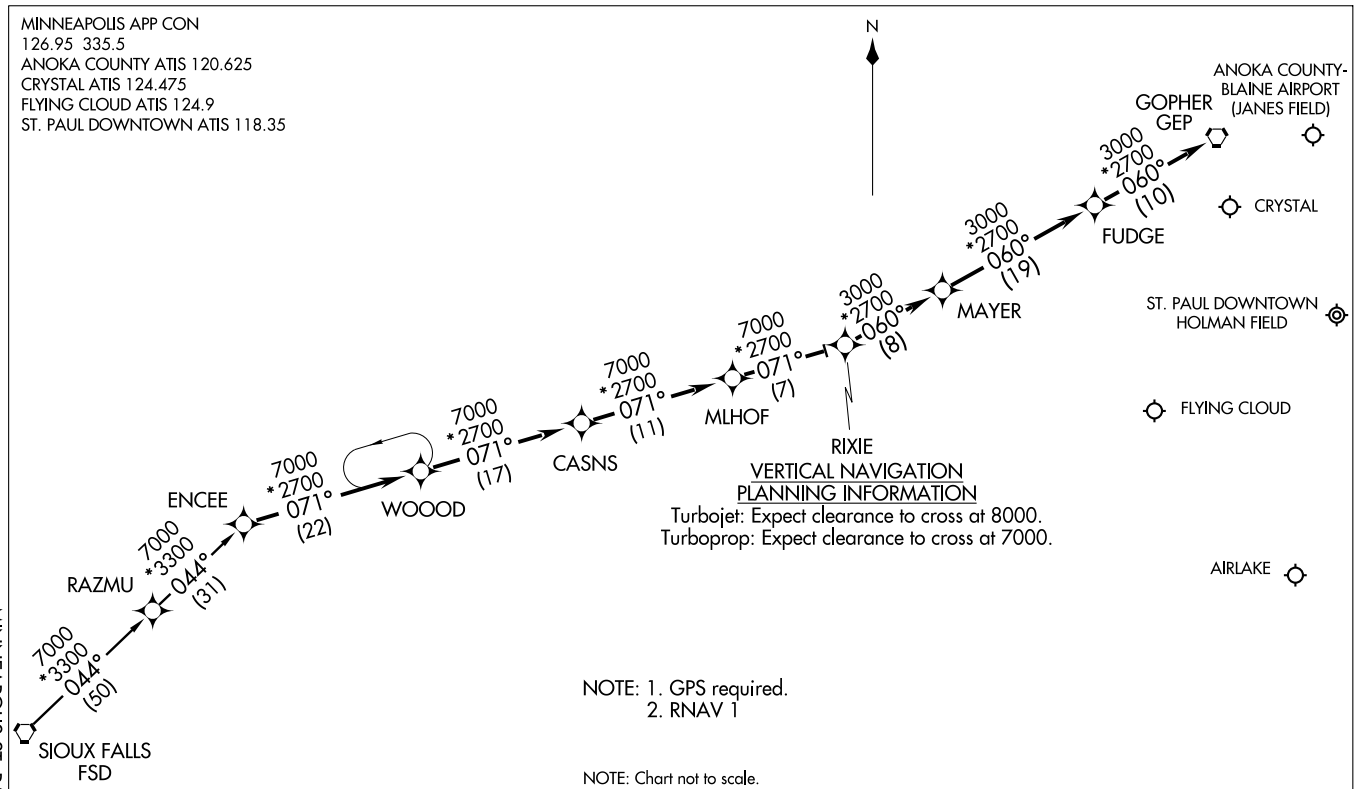
RWY 27: Multiple trees 7′ from DER, 235′ right of centerline, up to 83′ AGL/983′ MSL.
Multiple trees 558′ from DER, 406′ left of centerline, up to 57′ AGL/957′ MSL.

RWY 36: Multiple trees 86′ from DER, 10′ right of centerline, up to 87′ AGL/987′ MSL.
Multiple trees 1282′ from DER, 53′ left of centerline, up to 70′ AGL/970′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

ENCEE ONE ARRIVAL (RNAV)

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



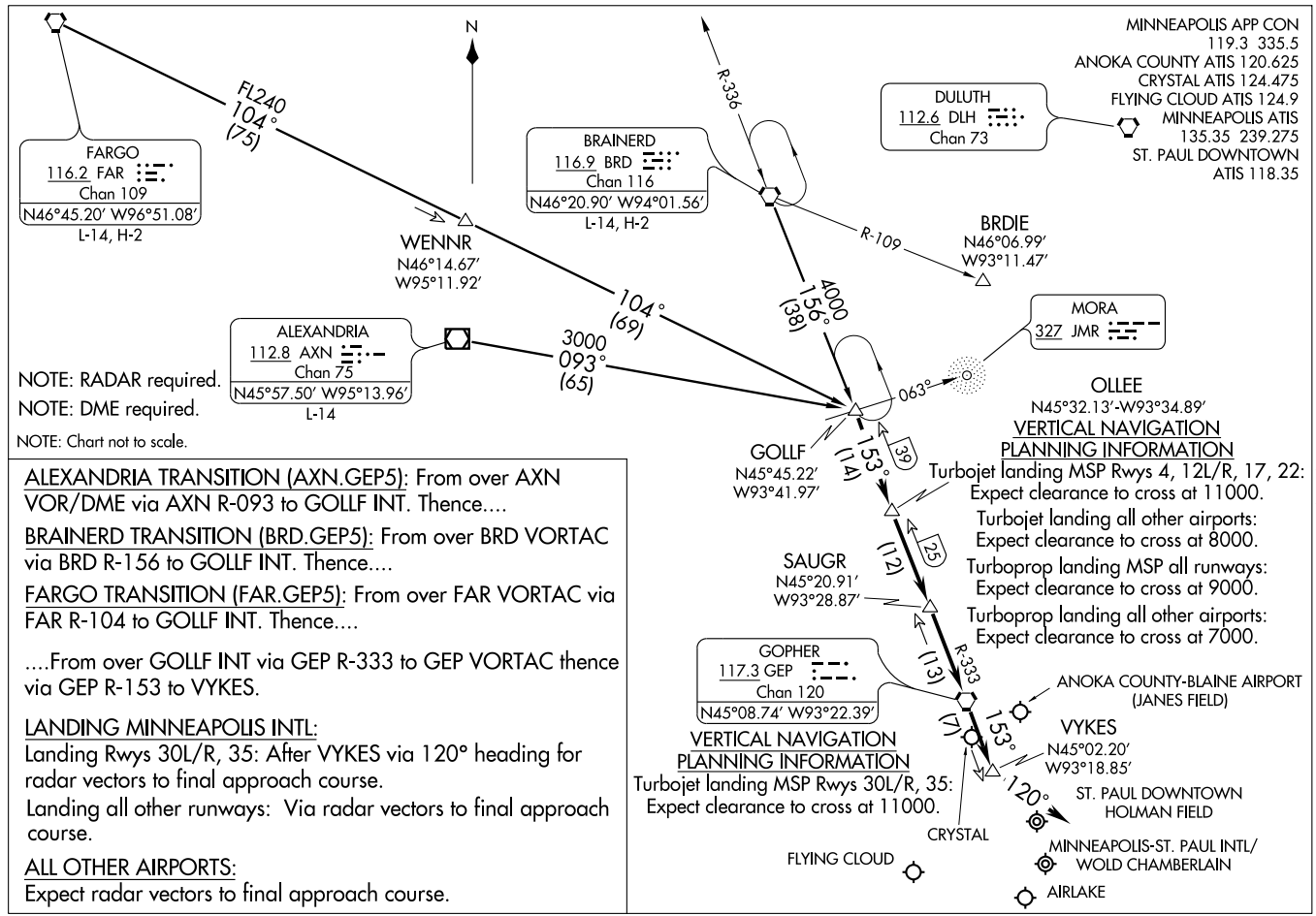
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 8000.
Turboprop: Expect clearance to cross at 7000.

NOTE: 1. GPS required.
2. RNAV 1

NOTE: Chart not to scale.

SIOUX FALLS TRANSITION (FSD.ENCEE1)

From over ENCEE WP via 071° track to RIXIE WP, thence via 060° track to GEP VORTAC, thence expect radar vectors to final approach course.


GOPHER FIVE ARRIVAL (GEP.GEP5) 08157
ST-264 (FAA)
MINNEAPOLIS, MINNESOTA
MINNEAPOLIS APP CON
119.3 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
MINNEAPOLIS ATIS
135.35 239.275
ST. PAUL DOWNTOWN
ATIS 118.35
N
FARGO
116.2 FAR
Chan 109
N46°45.20' W96°51.08'
L-14, H-2
FL240
104°
(75)
WENNR
N46°14.67'
W95°11.92'
BRAINERD
116.9 BRD
Chan 116
N46°20.90' W94°01.56'
L-14, H-2
R-336
DULUTH
112.6 DLH
Chan 73
R-109
BRDIE
N46°06.99'
W93°11.47'
4000
156°
(38)
MORA
327 JMR
ALEXANDRIA
112.8 AXN
Chan 75
N45°57.50' W95°13.96'
L-14
3000
093°
(65)
104°
(69)
063°
OLLEE
N45°32.13'-W93°34.89'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 4, 12L/R, 17, 22:
Expect clearance to cross at 11000.
Turbojet landing all other airports:
Expect clearance to cross at 8000.
Turboprop landing MSP all runways:
Expect clearance to cross at 9000.
Turboprop landing all other airports:
Expect clearance to cross at 7000.
GOLLF
N45°45.22'
W93°41.97'
153°
(14)
39
SAUGR
N45°20.91'
W93°28.87'
(12)
25
R-333
(13)
GOPHER
117.3 GEP
Chan 120
N45°08.74' W93°22.39'
(7)
153°
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 30L/R, 35:
Expect clearance to cross at 11000.
ANOKA COUNTY-BLAINE AIRPORT
(JANES FIELD)
VYKES
N45°02.20'
W93°18.85'
120°
ST. PAUL DOWNTOWN
HOLMAN FIELD
CRYSTAL
MINNEAPOLIS-ST. PAUL INTL/
WOLD CHAMBERLAIN
FLYING CLOUD
AIRLAKE
NOTE: RADAR required.
NOTE: DME required.
NOTE: Chart not to scale.
ALEXANDRIA TRANSITION (AXN.GEP5): From over AXN VOR/DME via AXN R-093 to GOLLF INT. Thence....
BRAINERD TRANSITION (BRD.GEP5): From over BRD VORTAC via BRD R-156 to GOLLF INT. Thence....
FARGO TRANSITION (FAR.GEP5): From over FAR VORTAC via FAR R-104 to GOLLF INT. Thence....
....From over GOLLF INT via GEP R-333 to GEP VORTAC thence via GEP R-153 to VYKES.
LANDING MINNEAPOLIS INTL:
Landing Rwys 30L/R, 35: After VYKES via 120° heading for radar vectors to final approach course.
Landing all other runways: Via radar vectors to final approach course.
ALL OTHER AIRPORTS:
Expect radar vectors to final approach course.

LOC/DME I-ANE	APP CRS	Rwy Idg	5000
111.15	269°	TDZE	910
Chan 48 (Y)		Apt Elev	912

MINNEAPOLIS/ ILS or LOC/DME RWY 27
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)

If local altimeter setting not received, use Crystal altimeter setting and increase all DAs/MDAs 40 feet.
VDP NA with Crystal altimeter setting.

MALSR

MISSED APPROACH: Climb to 2700 direct GEP VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	ANOKA TOWER*	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
120.625	126.5	132.4 (CTAF) L	121.85	121.3	121.85 (When tower closed)	122.95

ALTERNATE MISSED APCH FIX
149°
329°
PRINCETON PNM 368

2454

Procedure NA for arrivals at BLAYN via V13 northbound, and arrivals at STILS via V78 eastbound.

15 NM

(IAF) BLAYN GEP 23

GEP 23 Arc 3100

R-058

GOPHER 117.3 GEP Chan 120

1530 1061± 1082 1426 LR-079 2600

R-264 084° 264° 1065± 1081±

KOGGE I-ANE 3.6

BOKYA I-ANE 6.1

269° (10.6) 089°

(IF) JUDAL I-ANE 16.7

(IAF) STILS GEP 30.9

GEP R-085

3100 265° (8)

1520 2438

LOCALIZER 111.15 I-ANE Chan 48(Y)

MSA GEP 25 NM 3500

DME REQUIRED

ELEV 912

971± 967± 985± 964

8L 26R 4855 X 100

5000 X 100 9 27 TDZE 910

36

269° 5.1 NM from FAF

2700 GEP 117.3

Use I-ANE DME when on the localizer course.

I-ANE 1 I-ANE 2.2 KOGGE I-ANE 3.6 BOKYA I-ANE 6.1 JUDAL I-ANE 16.7

2600 269° 3100 Procedure Turn NA

1780 2600

GS 3.00° TCH 49

1.2 NM 1.4 NM 2.5 NM 10.6 NM

CATEGORY	A	B	C	D
S-ILS 27	1110-½ 200 (200-½)			
S-LOC 27	1340-½ 430 (500-½)		1340-¾ 430 (500-¾)	1340-1 430 (500-1)
CIRCLING	1400-1 488 (500-1)		1400-1½ 488 (500-1½)	1480-2 568 (600-2)

HIRL Rwy 9-27 L
MIRL Rwy 18-36 L
REIL Rwys 9, 18, and 36 L

KBREW THREE DEPARTURE

(KBREW3.KBREW) 10098

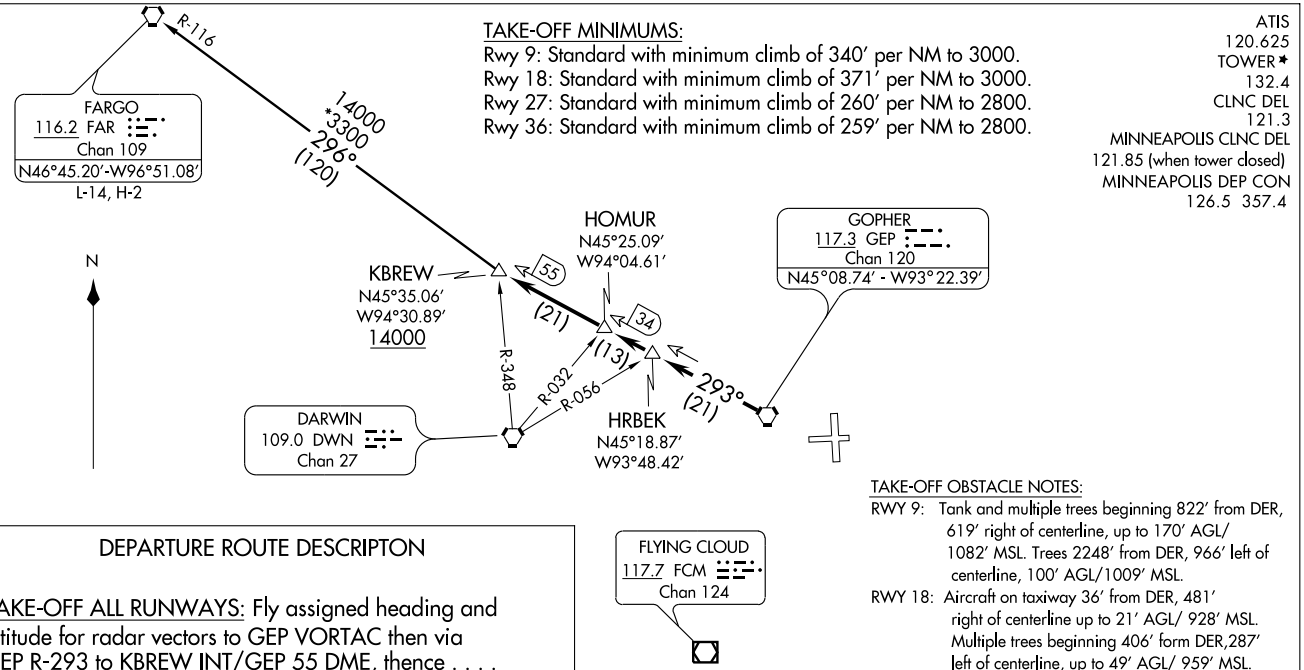
MINNEAPOLIS/ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)

SL-5202 (FAA)

MINNEAPOLIS, MINNESOTA

ATIS
120.625
TOWER ✱
132.4
CLNC DEL
121.3
MINNEAPOLIS CLNC DEL
121.85 (when tower closed)
MINNEAPOLIS DEP CON
126.5 357.4

TAKE-OFF MINIMUMS:
Rwy 9: Standard with minimum climb of 340′ per NM to 3000.
Rwy 18: Standard with minimum climb of 371′ per NM to 3000.
Rwy 27: Standard with minimum climb of 260′ per NM to 2800.
Rwy 36: Standard with minimum climb of 259′ per NM to 2800.



DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to GEP VORTAC then via GEP R-293 to KBREW INT/GEP 55 DME, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

FARGO TRANSITION (KBREW3.FAR):
From over KBREW INT via FAR R-116 to FAR VORTAC.

NOTE: RADAR required.
NOTE: Chart not to scale.

TAKE-OFF OBSTACLE NOTES:
RWY 9: Tank and multiple trees beginning 822′ from DER, 619′ right of centerline, up to 170′ AGL/ 1082′ MSL. Trees 2248′ from DER, 966′ left of centerline, 100′ AGL/1009′ MSL.
RWY 18: Aircraft on taxiway 36′ from DER, 481′ right of centerline up to 21′ AGL/ 928′ MSL. Multiple trees beginning 406′ form DER,287′ left of centerline, up to 49′ AGL/ 959′ MSL. Tower 5016′ from DER 201′ left of centerline 120′ AGL/1078′ MSL.
RWY 27: Multiple trees beginning 7′ from DER, 235′ right of centerline, up to 83′ AGL/ 983′ MSL. Multiple trees beginning 558′ from DER, 406′ left of centerline, up to 57′ AGL/ 957′ MSL.
RWY 36: Multiple trees beginning 86′ from DER, 10′ right of centerline, up to 87′ AGL/987′ MSL. Multiple trees beginning 1282′ from DER, 53′ left of centerline, up to 70′ AGL/970′ MSL.

ORSKY FOUR DEPARTURE

ATIS 120.625
CLNC DEL 121.3
MINNEAPOLIS CLNC DEL
121.85 (when tower closed)
MINNEAPOLIS DEP CON
121.6 357.4

GOPHER
117.3 GEP
Chan 120

MINNEAPOLIS
115.3 MSP
Chan 100
N44°53.79′ - W93°14.19′

FLYING CLOUD
117.7 FCM
Chan 124

JURNY
N44°36.52′
W93°28.34′

208° (20)

R-258

208° (13)

(33)

R-198

J21

(15)

48

RUMLE
N44°25.28′
W93°37.47′

FARMINGTON
115.7 FGT
Chan 104

FAIRMONT
110.2 FRM
Chan 39

(37)

85

R-268

R-318

HALFWAY
111.2 FOW
Chan 49

PEDLN
N44°12.16′
W93°48.02′

R-074

ORSKY
N43°40.19′
W94°13.38′

9000
*2800
208° (26)

ONTIJ
N43°17.86′
W94°30.77′
12000 (MRA)

J21

(11)

12000
*3000
195° (22)

9000
*2900
176° (64)

R-278

MASON CITY
114.9 MCW
Chan 96

GOOLD
N42°57.52′
W94°42.85′

MCW
R-257

SIMJI
N42°49.56′
W94°47.52′

(9)

R-312

R-294

R-356

FORT DODGE
113.5 FOD
Chan 82
N42°36.67′-W94°17.69′
L-12, H-5

EYHUX
N42°26.13′
W95°01.16′

(25)

J21

(39)

83

R-308

DES MOINES
117.5 DSM
Chan 122

NOTE: RADAR required.

NOTE: Chart not to scale.

114.8 OBH
R-070
Chan 95

R-281

PUMKN
N41°50.54′
W95°21.52′

(44)

R-015

(NARRATIVE ON FOLLOWING PAGE)

OMAHA
116.3 OVR
Chan 110
N41°10.04′-W95°44.20′
L-10-12, H-5

TAKE-OFF MINIMUMS

Rwy 9: Standard with minimum climb of 340′ per NM to 3000.
Rwy 18: Standard with minimum climb of 371′ per NM to 3000.
Rwy 27: Standard with minimum climb of 259′ per NM to 2800.
Rwy 36: Standard with minimum climb of 259′ per NM to 2800.

NC-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-208 to ORSKY INT/MSP 85 DME, thence via transition or assigned route. Expect clearance to filed altitude/flight level 10 minutes after departure.

FORT DODGE TRANSITION (ORSKY4.FOD): From over ORSKY INT via FOD R-356 to FOD VORTAC.

OMAHA TRANSITION (ORSKY4.OVR): From over ORSKY INT via MSP R-208 to ONTIJ INT then via OVR R-015 to OVR VORTAC.

TAKE-OFF OBSTACLE NOTES

RWY 9: Tank and multiple trees beginning 822′ from DER, 619′ right of centerline, up to 170′ AGL/1082′ MSL.
Trees 2248′ from DER, 966′ left of centerline, 100′ AGL/1009′ MSL.

RWY 18: Aircraft on taxiway 36′ from DER, 481′ right of centerline, up to 21′ AGL/928′ MSL.
Multiple trees beginning 406′ from DER, 287′ left of centerline, up to 49′ AGL/959′ MSL.
Tower 5016′ from DER, 201′ left of centerline, 120′ AGL/1078′ MSL.

RWY 27: Multiple trees beginning 7′ from DER, 235′ right of centerline, up to 83′ AGL/983′ MSL.
Multiple trees beginning 558′ from DER, 406′ left of centerline, up to 57′ AGL/957′ MSL.

RWY 36: Multiple trees beginning 86′ from DER, 10′ right of centerline, up to 87′ AGL/987′ MSL.
Multiple trees beginning 1282′ from DER, 53′ left of centerline, up to 70′ AGL/970′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 82312 W09A	APP CRS 089°	Rwy Idg 5000 TDZE 910 Apt Elev 912

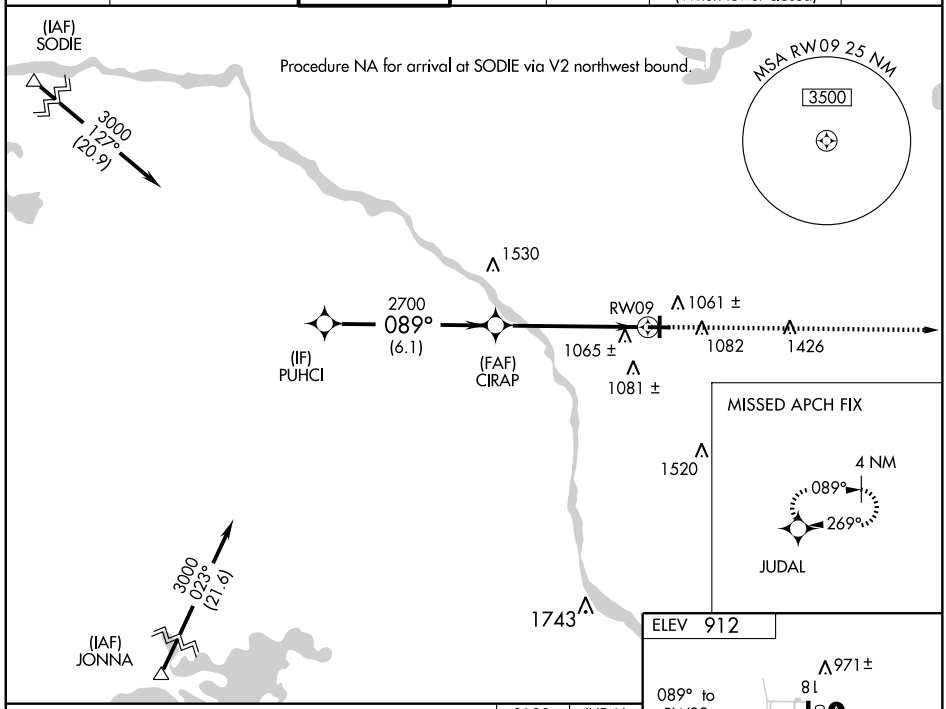
MINNEAPOLIS/ ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)

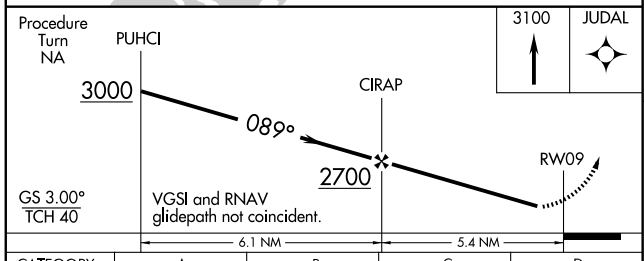
RNAV (GPS) RWY 9

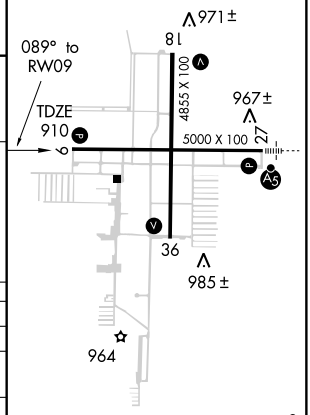
Baro-VNAV NA when using Crystal altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Crystal altimeter setting and increase all DA 25 feet, all MDA 40 feet, increase LNAV/VNAV all Cats visibility ¼ mile, LNAV Cat D ¼ mile.

MISSED APPROACH: Climb to 3100 direct JUDAL and hold.

ATIS	MINNEAPOLIS APP CON	ANOKA TOWER★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
120.625	126.5	132.4 (CTAF) L	121.85	121.3	121.85 (When tower closed)	122.95







CATEGORY	A	B	C	D
LPV DA	1225-1¼ 315 (400-1¼)			
LNAV/ VNAV DA	1352-1½ 442 (500-1½)			
LNAV MDA	1320-1 410 (500-1)		1320-1¼ 410 (500-1¼)	
CIRCLING	1400-1 488 (500-1)		1400-1½ 488 (500-1½)	1480-2 568 (600-2)

HIRL Rwy 9-27 L
MIRL Rwy 18-36 L
REIL Rwys 9, 18 and 36 L

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4855
179°	TDZE	912
	Apt Elev	912

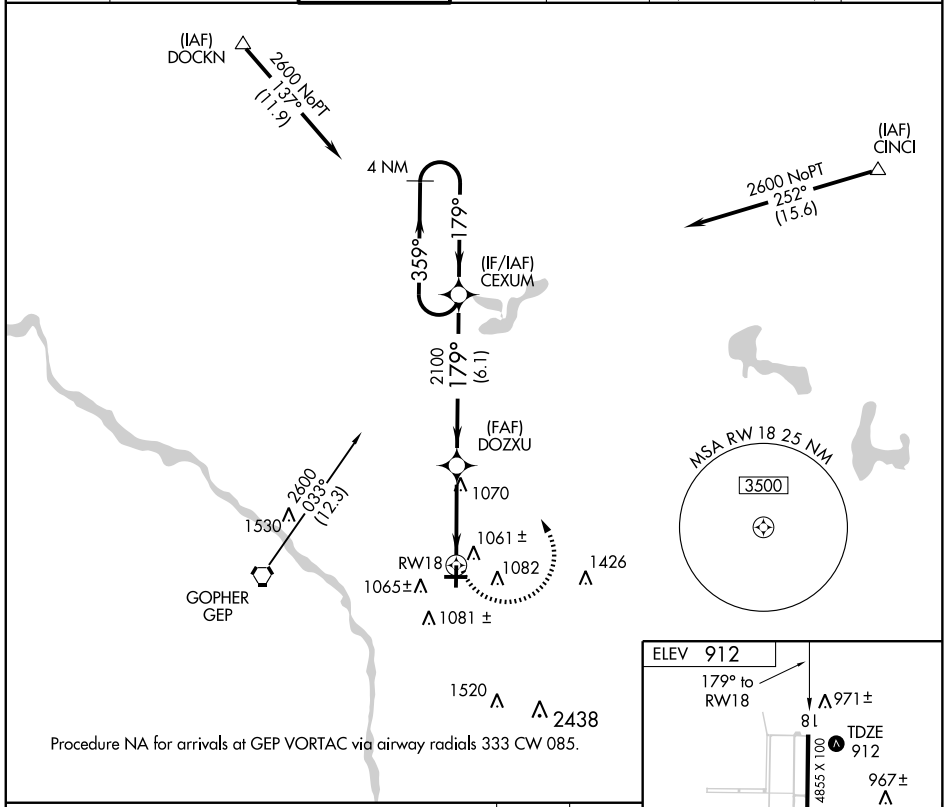
RNAV (GPS) RWY 18

MINNEAPOLIS/
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)

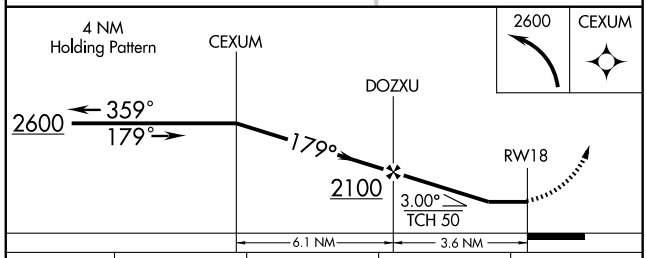
DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Crystal altimeter setting and increase all MDA 40 feet, increase LNAV Cat C visibility ¼ mile.

MISSED APPROACH: Climbing left turn to 2600 direct CEXUM and hold.

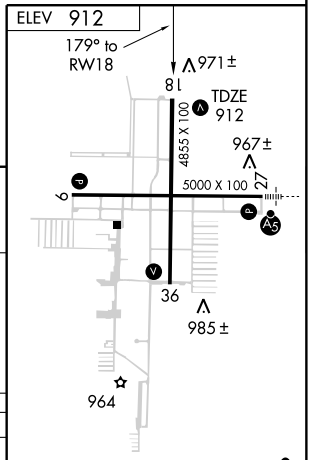
ATIS	MINNEAPOLIS APP CON	ANOKA TOWER★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
120.625	126.5	132.4 (CTAF) L	121.85	121.3	121.85 (When tower closed)	122.95



Procedure NA for arrivals at GEP VORTAC via airway radials 333 CW 085.



CATEGORY	A	B	C	D
LNAV MDA	1380-1	468 (500-1)	1380-1¼ 468 (500-1¼)	1380-1½ 468 (500-1½)
CIRCLING	1400-1	488 (500-1)	1400-1½ 488 (500-1½)	1480-2 568 (600-2)



HIRL Rwy 9-27 L
MIRL Rwy 18-36 L
REIL Rwys 9, 18 and 36 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 78300 W27A	APP CRS 269°	Rwy Idg 5000 TDZE 910 Apt Elev 912

RNAV (GPS) RWY 27

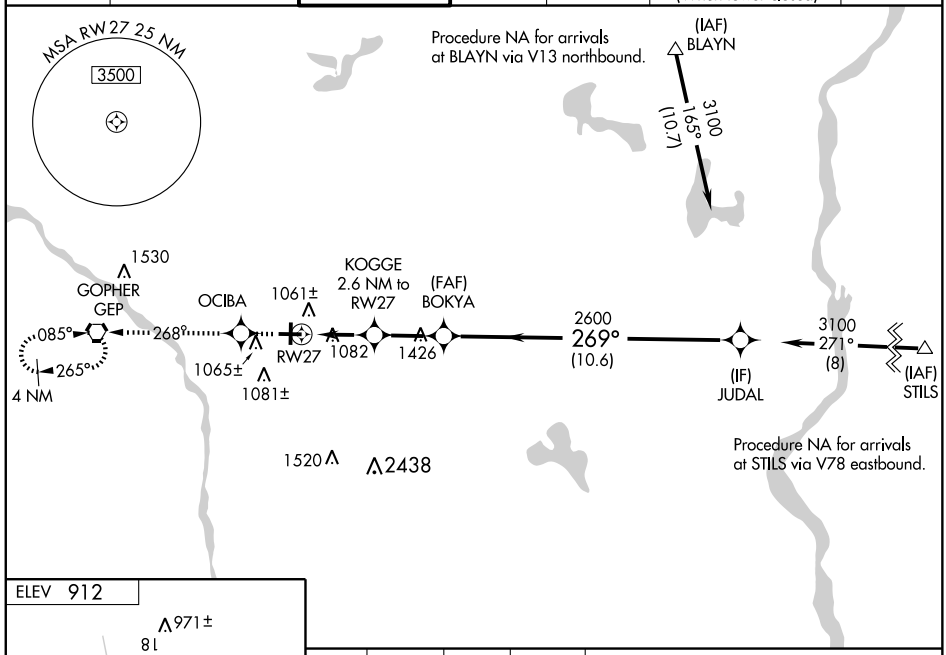
MINNEAPOLIS/ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)

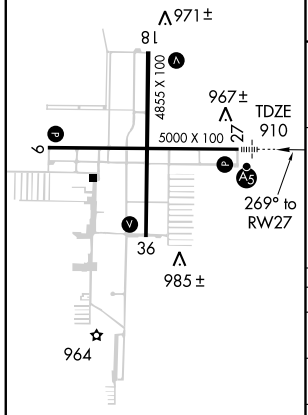
Baro-VNAV and VDP NA when using Crystal altimeter setting.
If local altimeter setting not received, use Crystal altimeter setting and increase all DAs/MDAs 40 feet.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F).
DME/DME RNP-0.3 NA.
For inoperative MALSR, increase LNAV Cat C visibility to 1¼.

MALSR

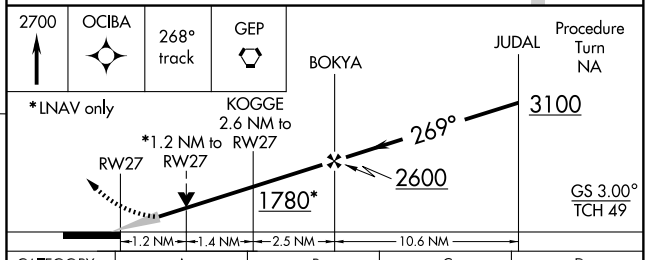
MISSED APPROACH: Climb to 2700 direct OCIBA and via 268° track to GEP VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	ANOKA TOWER*	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
120.625	126.5	132.4 (CTAF) L	121.85	121.3	121.85 (When tower closed)	122.95





HIRL Rwy 9-27 L
MIRL Rwy 18-36 L
REIL Rwys 9, 18, and 36 L

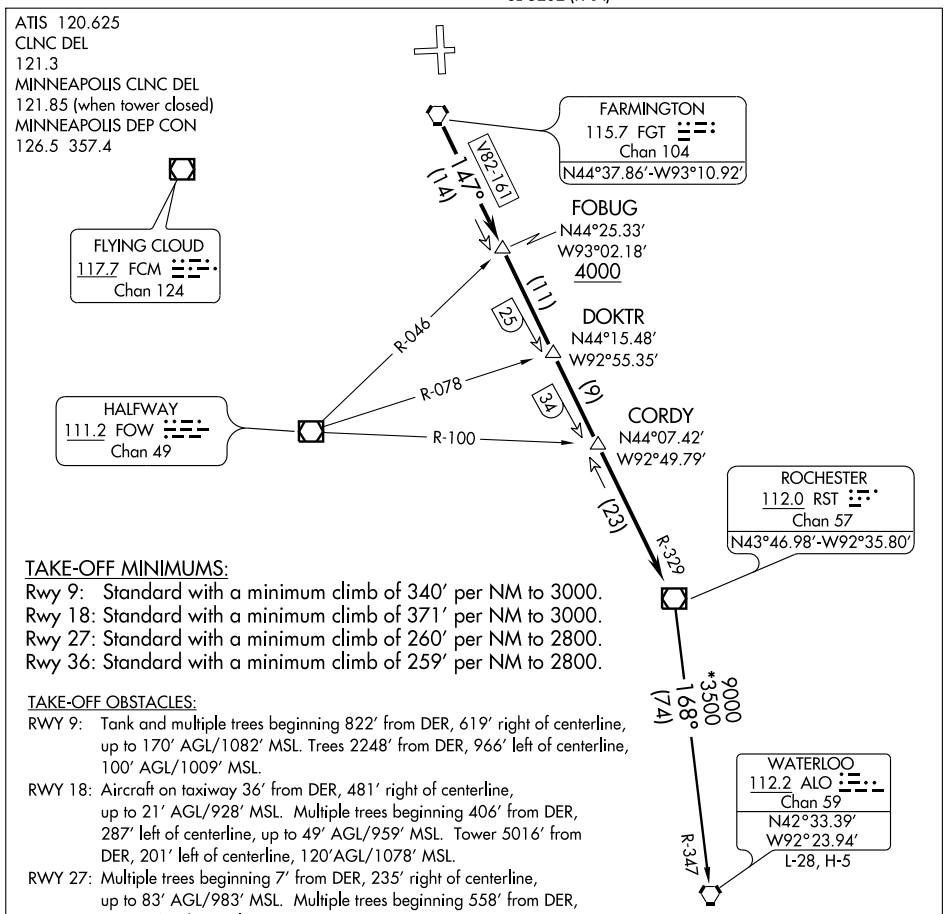


CATEGORY	A	B	C	D
LPV DA	1160-½ 250 (300-½)			
LNAV/VNAV DA	1371-1 461 (500-1)			
LNAV MDA	1340-½ 430 (500-½)			1340-1 430 (500-1)
CIRCLING	1400-1 488 (500-1)		1400-1½ 488 (500-1½)	1480-2 568 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

ROCHESTER FOUR DEPARTURE

SL-5202 (FAA) MINNEAPOLIS, MINNESOTA



TAKE-OFF MINIMUMS:

Rwy 9: Standard with a minimum climb of 340′ per NM to 3000.
Rwy 18: Standard with a minimum climb of 371′ per NM to 3000.
Rwy 27: Standard with a minimum climb of 260′ per NM to 2800.
Rwy 36: Standard with a minimum climb of 259′ per NM to 2800.

TAKE-OFF OBSTACLES:

RWY 9: Tank and multiple trees beginning 822′ from DER, 619′ right of centerline, up to 170′ AGL/1082′ MSL. Trees 2248′ from DER, 966′ left of centerline, 100′ AGL/1009′ MSL.

RWY 18: Aircraft on taxiway 36′ from DER, 481′ right of centerline, up to 21′ AGL/928′ MSL. Multiple trees beginning 406′ from DER, 287′ left of centerline, up to 49′ AGL/959′ MSL. Tower 5016′ from DER, 201′ left of centerline, 120′AGL/1078′ MSL.

RWY 27: Multiple trees beginning 7′ from DER, 235′ right of centerline, up to 83′ AGL/983′ MSL. Multiple trees beginning 558′ from DER, 406′ right of centerline, up to 57′ AGL/957′ MSL.

RWY 36: Multiple trees beginning 86′ from DER, 10′ right of centerline, up to 87′ AGL/987′ MSL. Multiple trees beginning 1282′ from DER, 53′ left of centerline, up to 70′ AGL/970′ MSL.

NOTE: RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS:

Fly assigned heading and altitude for radar vectors to FGT VORTAC then via FGT R-147 and RST R-329 to RST VOR/DME. Cross FOBUG INT/FGT 14 DME at or above 4000, Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

WATERLOO TRANSITION (RST4.ALO): From over RST VOR/DME via RST R-168 and ALO R-347 to ALO VORTAC.

NC-1, 03 JUN 2010 to 01 JUL 2010

TAKE-OFF OBSTACLES:

RWY 9: Tank and multiple trees beginning 822′ from DER, 619′ right of centerline, up to 170′ AGL/1082′ MSL. Trees 2248′ from DER, 966′ left of centerline, 100′ AGL/1009′ MSL.

RWY 18: Aircraft on taxiway 36′ from DER, 481′ right of centerline, up to 21′ AGL/928′ MSL. Multiple trees beginning 406′ from DER, 287′ left of centerline, up to 49′ AGL/959′ MSL Tower 5016′ from DER 201′ left of centerline, 120′ AGL/1078′ MSL..

RWY 27: Multiple trees beginning 7′ from DER, 235′ right of centerline, up to 83′ AGL/983′ MSL. Multiple trees beginning 558′ from DER, 406′ right of centerline, up to 57′ AGL/957′ MSL.

RWY 36: Multiple trees beginning 86′ from DER, 10′ right of centerline, up to 87′ AGL/987′ MSL. Multiple trees beginning 1282′ from DER, 53′ left of centerline, up to 70′ AGL/970′ MSL.

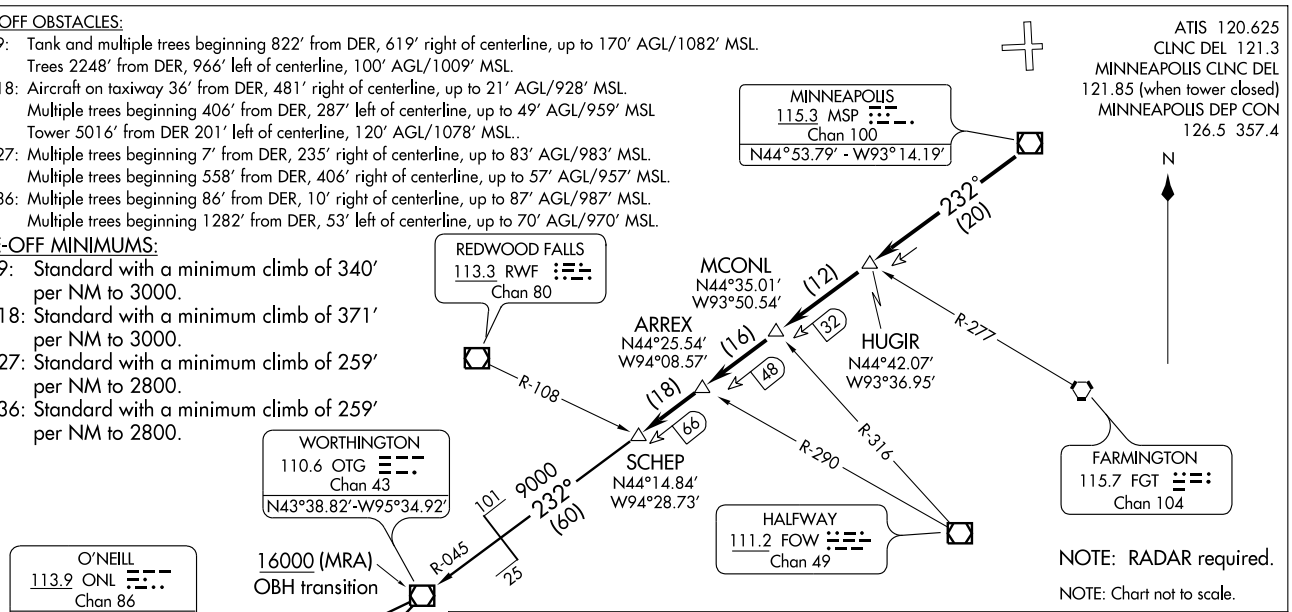
TAKE-OFF MINIMUMS:

Rwy 9: Standard with a minimum climb of 340′ per NM to 3000.

Rwy 18: Standard with a minimum climb of 371′ per NM to 3000.

Rwy 27: Standard with a minimum climb of 259′ per NM to 2800.

Rwy 36: Standard with a minimum climb of 259′ per NM to 2800.



DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-232 to SCHEP INT/MSP 66 DME, Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

O′NEILL TRANSITION (SCHEP3.ONL): From over SCHEP INT via OTG R-045 to OTG VOR/DME, then via OTG R-236 and ONL R-052 to ONL VORTAC.

WOLBACH TRANSITION (SCHEP3.OBH): From over SCHEP INT via OTG R-045 to OTG VOR/DME then via OTG R-215 and OBH R-034 to OBH VORTAC.

(TWOLF.TWOLF2) 10154

TWOLF TWO ARRIVAL

ST-264 (FAA)

MINNEAPOLIS, MINNESOTA

MINNEAPOLIS APP CON
126.95 335.5
118.72 (MSP RWY 35)
MINNEAPOLIS ATIS
135.35 239.275
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS
118.35

L.O. SIMENSTAD MUNI
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD)
NEW RICHMOND RGNL
CRYSTAL
ST. PAUL DOWNTOWN HOLMAN FIELD
FLYING CLOUD
MINNEAPOLIS-ST. PAUL INTL/ WOLD CHAMBERLAIN
AIRLAKE

GOPHER
117.3 GEP
Chan 120

FLYING CLOUD
117.7 FCM
Chan 124
N44°49.54′-W93°27.41′

FARMINGTON
115.7 FGT
Chan 104
N44°37.86′-W93°10.92′

MANKATO
110.8 MKT
Chan 45

FORT DODGE
113.5 FOD
Chan 82
N42°36.67′-W94°17.69′
L-12, H-5

300°
R-103
330°
(11)
R-180
R-178
R-201
(8)
5000
(36)
360°
(17)
(9)
(55)
021°
5000
(10)
R-081
6000
(62)
(7)
8000
(22)
(84)
12000
358°
(28)
(112)
12000
032°
(30)
(52)
R-178
GEP
12000
*2900
032°
(22)

SLIKK
N44°47.90′
W93°17.21′

TRGET
N44°13.88′-W93°27.73′

VERTICAL NAVIGATION PLANNING INFORMATION

MSP: Expect clearance to cross at 11000.
All other airports:
Turbojets: Expect clearance to cross at 8000.
Turboprops: Expect clearance to cross at 7000.

GDNEE
N44°30.68′
W93°15.98′

PIKKL
N44°22.82′
W93°21.49′

LYNKS
N44°06.89′
W93°28.39′

KGEEE
N43°44.94′
W93°30.47′

TWOLF
N43°17.00′
W93°33.09′

TICKT
N42°53.71′
W93°59.01′

NOTE: DME and RADAR Required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NC-1, 03 JUN 2010 to 01 JUL 2010

TWOLF TWO ARRIVAL

ARRIVAL DESCRIPTION

FORT DODGE TRANSITION (FOD.TWOLF2): From over FOD VORTAC via FOD R-032 to TWOLF/FOD 52 DME, Thence

....From over TWOLF/GEP 112 DME via GEP R-178 to KGEEE/GEP 84 DME, then as depicted to TRGET INT/GEP 55 DME. Thence....

LANDING MSP RWYS 12L/R: From over TRGET INT via FGT R-201 to FGT VORTAC, then via FGT R-330 to SLIKK INT/FGT 11 DME, then via heading 300° for radar vectors to final approach course.

LANDING MSP RWYS 30L/R, 4, 22, 17, 35: From over TRGET INT via FGT R-201 to FGT VORTAC, then via radar vectors to final approach course.

LANDING ALL OTHER AIRPORTS: From over TRGET INT via FCM R-180 to FCM VOR/DME, then expect radar vectors to final approach course.

NC-1. 03 JUN 2010 to 01 JUL 2010

VORTAC GEP 117.3 Chan 120	APP CRS 264°	Rwy Idg 5000 TDZE 910 Apt Elev 912

VOR/DME RWY 27

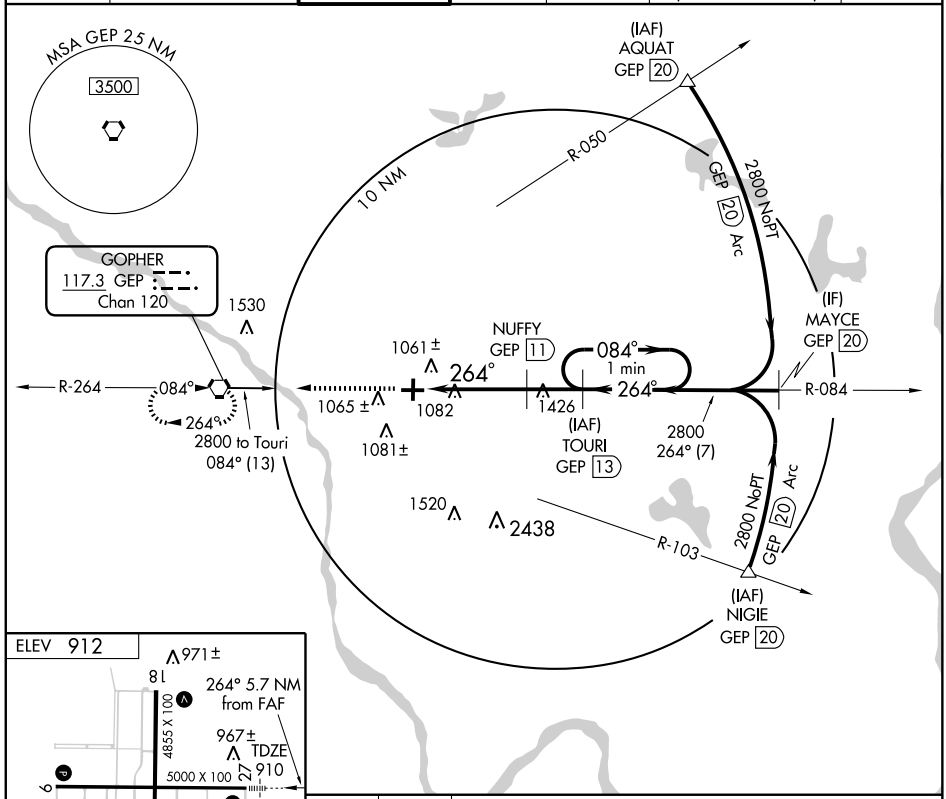
MINNEAPOLIS/
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)

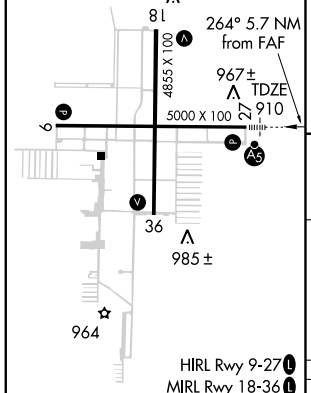
DME required.
When local altimeter setting not received, use Crystal altimeter setting and increase all MDA 40 feet.
VDP NA when using Crystal altimeter setting.

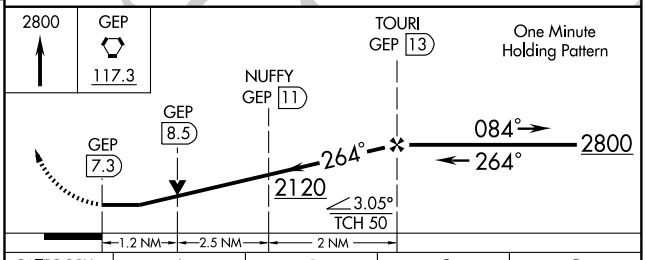
MALSR

MISSED APPROACH: Climb to 2800 direct GEP VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	ANOKA TOWER★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
120.625	126.5	132.4 (CTAF) L	121.85	121.3	121.85 (When tower closed)	122.95







FAF to MAP 5.7 NM					
Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

CATEGORY	A	B	C	D
S-27	1340-½	430 (500-½)	1340-¾ 430 (500-¾)	1340-1 430 (500-1)
CIRCLING	1400-1	488 (500-1)	1400-1½ 488 (500-1½)	1480-2 568 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

VORTAC GEP 117.3 Chan 120	APP CRS 084°	Rwy Idg 5000 TDZE 910 Apt Elev 912

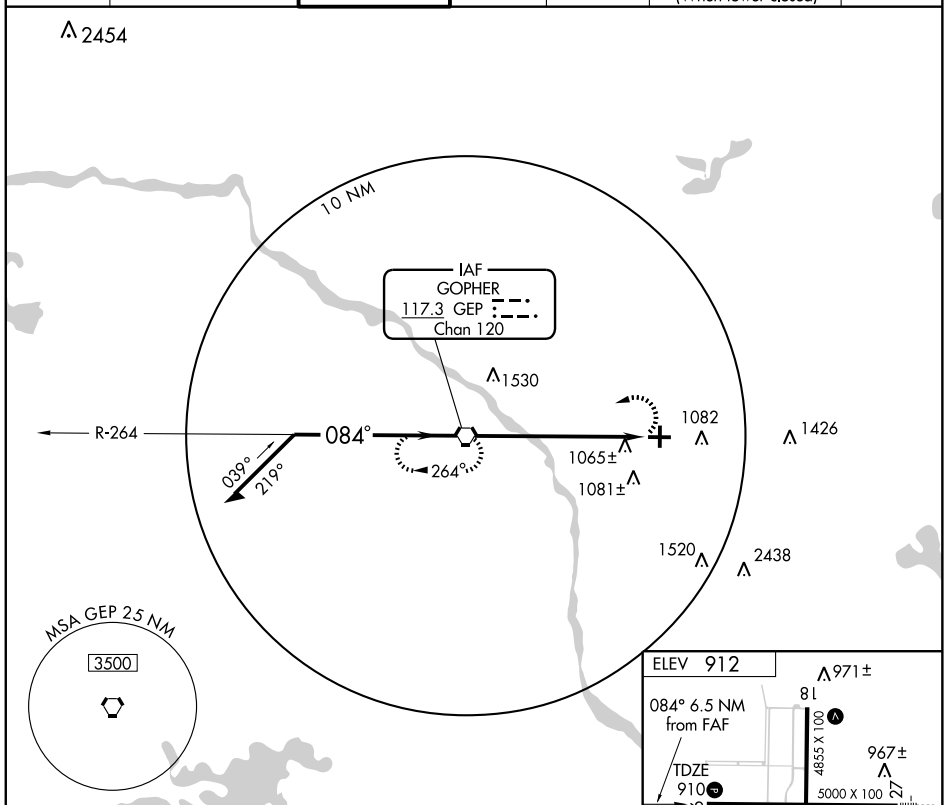
MINNEAPOLIS/
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)

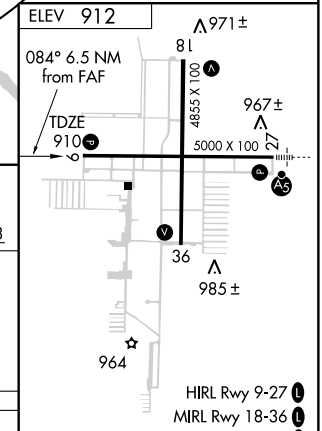
VOR RWY 9

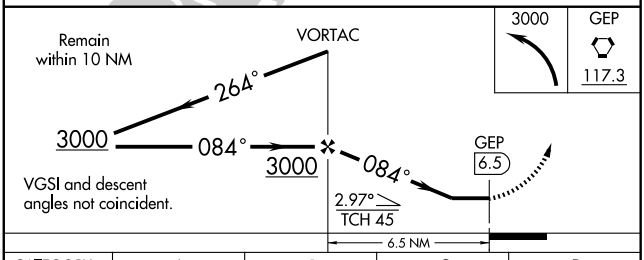
▼ Visibility reduction by helicopters NA.
▲ When local altimeter setting not received, use Crystal altimeter setting and increase all MDA 40 feet and S-9 Cat C visibility ¼ mile.

MISSED APPROACH: Climbing left turn to 3000 direct to GEP VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	ANOKA TOWER*	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
120.625	126.5	132.4 (CTAF) L	121.85	121.3	121.85 (When tower closed)	122.95







CATEGORY	A	B	C	D
S-9	1380-1	470 (500-1)	1380-1¼ 470 (500-1¼)	1380-1½ 470 (500-1½)
CIRCLING	1400-1	488 (500-1)	1400-1½ 488 (500-1½)	1480-2 568 (600-2)

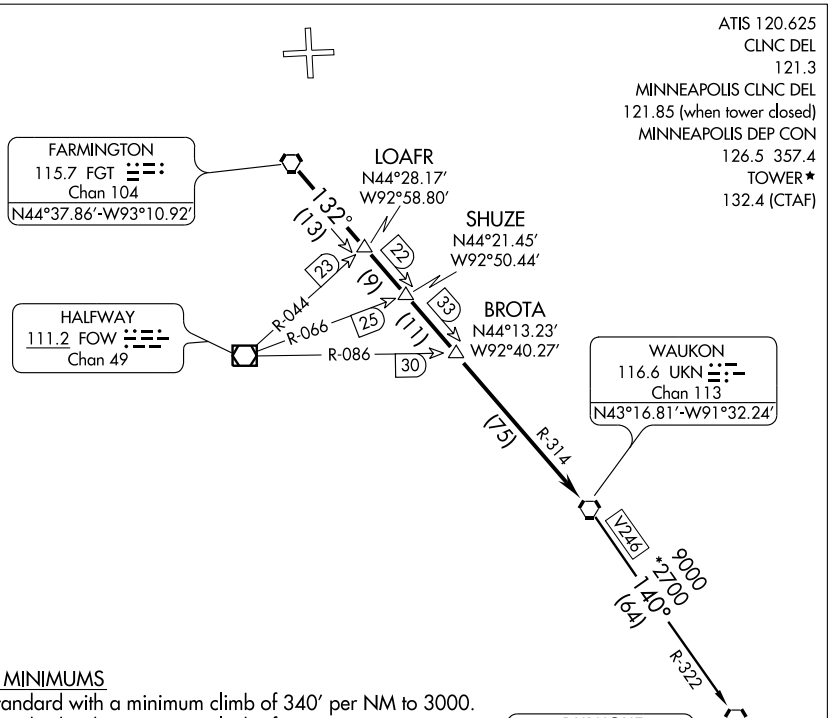
FAF to MAP 6.5 NM

Knots	60	90	120	150	180
Min:Sec	6:30	4:20	3:15	2:36	2:10

NC-1, 03 JUN 2010 to 01 JUL 2010

WAUKON THREE DEPARTURE SL-5202 (FAA)

MINNEAPOLIS, MINNESOTA



TAKE-OFF MINIMUMS

Rwy 9: Standard with a minimum climb of 340' per NM to 3000.
Rwy 18: Standard with a minimum climb of 371' per NM to 3000.
Rwy 27: Standard with a minimum climb of 260' per NM to 2800.
Rwy 36: Standard with a minimum climb of 259' per NM to 2800.

TAKE-OFF OBSTACLE NOTES

RWY 9: Tank and multiple trees beginning 822' from DER, 619' right of centerline, up to 170' AGL/1082' MSL. Trees 2248' from DER, 966' left of centerline, 100' AGL/1009' MSL.
RWY 18: Aircraft on taxiway 36' from DER, 481' right of centerline, up to 21' AGL/928' MSL. Multiple trees beginning 406' from DER, 287' left of centerline, up to 49' AGL/959' MSL. Tower 5016' from DER, 201' left of centerline, 120' AGL/1078' MSL.
RWY 27: Multiple trees beginning 7' from DER, 235' right of centerline, up to 83' AGL/983' MSL. Multiple trees beginning 558' from DER, 406' left of centerline, up to 57' AGL/957' MSL.
RWY 36: Multiple trees beginning 86' from DER, 10' right of centerline, up to 87' AGL/987' MSL. Multiple trees beginning 1282' from DER, 53' left of centerline, up to 70' AGL/970' MSL.

NOTE: RADAR required.

NOTE: Chart not to scale.

L-28, H-5

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to FGT VORTAC then via FGT R-132 and UKN R-314 to UKN VORTAC, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

DUBUQUE TRANSITION (UKN3.DBQ): From over UKN VORTAC via UKN R-140 and DBQ R-322 to DBQ VORTAC.

NC-1, 03 JUN 2010 to 01 JUL 2010

ATIS 120.625
CLNC DEL
121.3
MINNEAPOLIS CLNC DEL
121.85 (when tower closed)
MINNEAPOLIS DEP CON
126.5 357.4

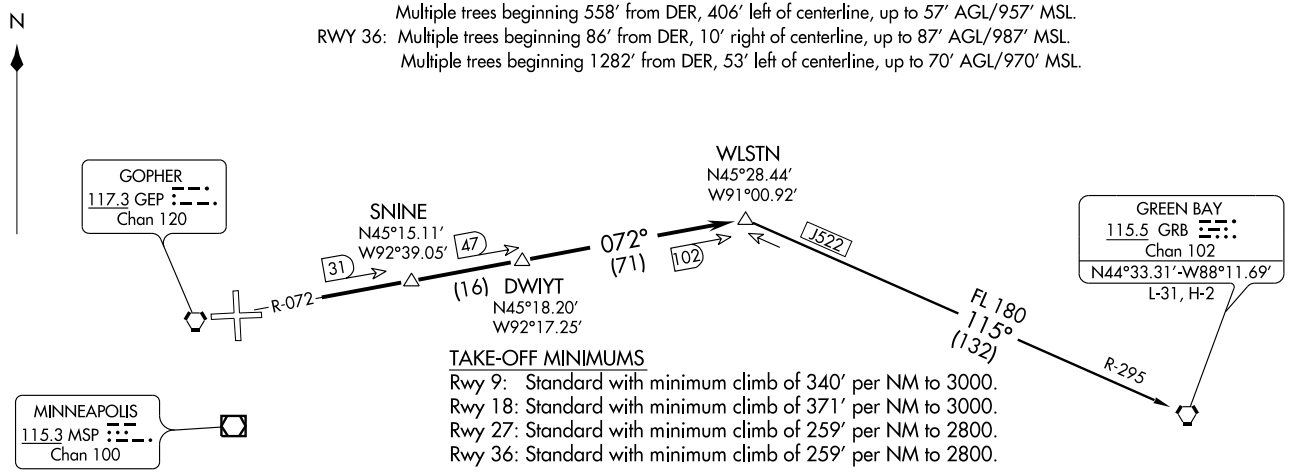
TAKE-OFF OBSTACLE NOTES

RWY 9: Tank and multiple trees beginning 822′ from DER, 619′ right of centerline, up to 170′ AGL/1082′ MSL. Trees 2248′ from DER, 966′ left of centerline, 100′ AGL/1009′ MSL.

RWY 18: Aircraft on taxiway 36′ from DER, 481′ right of centerline, up to 21′ AGL/928′ MSL. Multiple trees beginning 406′ from DER, 287′ left of centerline, up to 49′ AGL/959′ MSL. Tower 5016′ from DER, 201′ left of centerline, 120′ AGL/1078′ MSL.

RWY 27: Multiple trees beginning 7′ from DER, 235′ right of centerline, up to 83′ AGL/983′ MSL. Multiple trees beginning 558′ from DER, 406′ left of centerline, up to 57′ AGL/957′ MSL.

RWY 36: Multiple trees beginning 86′ from DER, 10′ right of centerline, up to 87′ AGL/987′ MSL. Multiple trees beginning 1282′ from DER, 53′ left of centerline, up to 70′ AGL/970′ MSL.



TAKE-OFF MINIMUMS

Rwy 9: Standard with minimum climb of 340′ per NM to 3000.
Rwy 18: Standard with minimum climb of 371′ per NM to 3000.
Rwy 27: Standard with minimum climb of 259′ per NM to 2800.
Rwy 36: Standard with minimum climb of 259′ per NM to 2800.

NOTE: RADAR and DME required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to GEP R-072 to WLSTN/GEP 102 DME, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

GREEN BAY TRANSITION (WLSTN3.GRB): From over WLSTN via GRB R-295 to GRB VORTAC.

WLSTN THREE DEPARTURE (WLSTN3.WLSTN) 10042

MINNEAPOLIS/ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE)

SL-5202 (FAA)

MINNEAPOLIS, MINNESOTA

(ZMBRO3.ZMBRO) ZMBRO THREE DEPARTURE

10042 MINNEAPOLIS/ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD) (ANE) SL-5202 (FAA) MINNEAPOLIS, MINNESOTA

ATIS 120.625
CLNC DEL
121.3
MINNEAPOLIS CLNC DEL
121.85 (when tower closed)
MINNEAPOLIS DEP CON
126.5 357.4

MINNEAPOLIS
115.3 MSP
Chan 100

TAKE-OFF OBSTACLES:

RWY 9: Tank and multiple trees beginning 822′ from DER, 619′ right of centerline, up to 170′ AGL/1082′ MSL. Trees 2248′ from DER, 966′ left of centerline, 100′ AGL/1009′ MSL.

RWY 18: Aircraft on taxiway 36′ from DER, 481′ right of centerline, up to 21′ AGL/928′ MSL. Multiple trees beginning 406′ from DER, 287′ left of centerline, up to 49′ AGL/959′ MSL. Tower 5016′ from DER, 201′ left of centerline, 120′ AGL/1078′ MSL.

RWY 27: Multiple trees beginning 7′ from DER, 235′ right of centerline, up to 83′ AGL/983′ MSL. Multiple trees beginning 558′ from DER, 406′ right of centerline, up to 57′ AGL/957′ MSL.

RWY 36: Multiple trees beginning 86′ from DER, 10′ right of centerline, up to 87′ AGL/987′ MSL. Multiple trees beginning 1282′ from DER, 53′ left of centerline, up to 70′ AGL/970′ MSL.

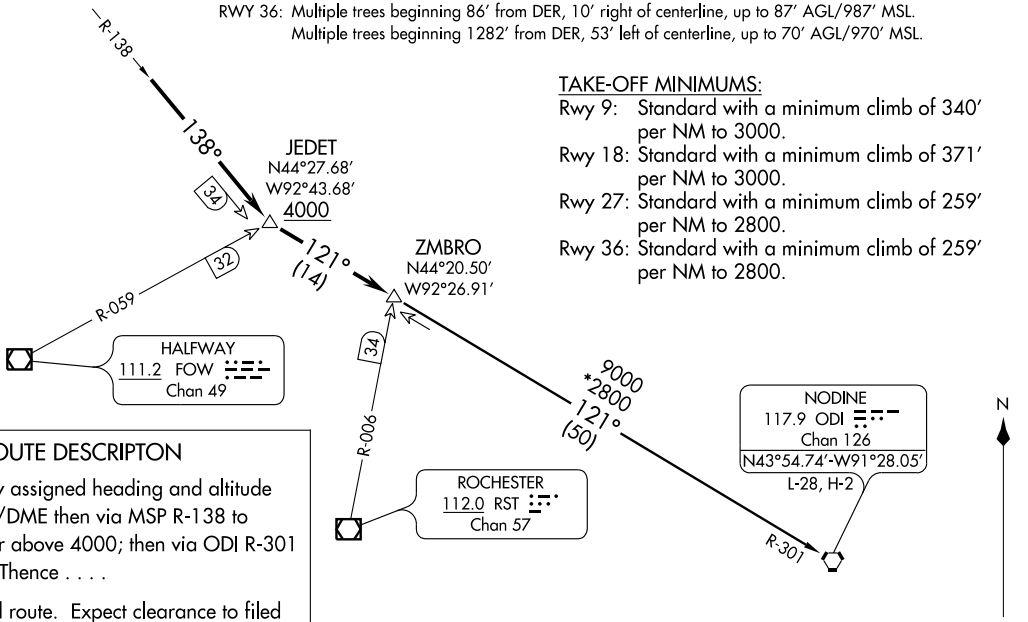
TAKE-OFF MINIMUMS:

Rwy 9: Standard with a minimum climb of 340′ per NM to 3000.

Rwy 18: Standard with a minimum climb of 371′ per NM to 3000.

Rwy 27: Standard with a minimum climb of 259′ per NM to 2800.

Rwy 36: Standard with a minimum climb of 259′ per NM to 2800.



DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-138 to JEDET INT/MSP 34 DME, at or above 4000; then via ODI R-301 to ZMBRO INT/ODI 50 DME, Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

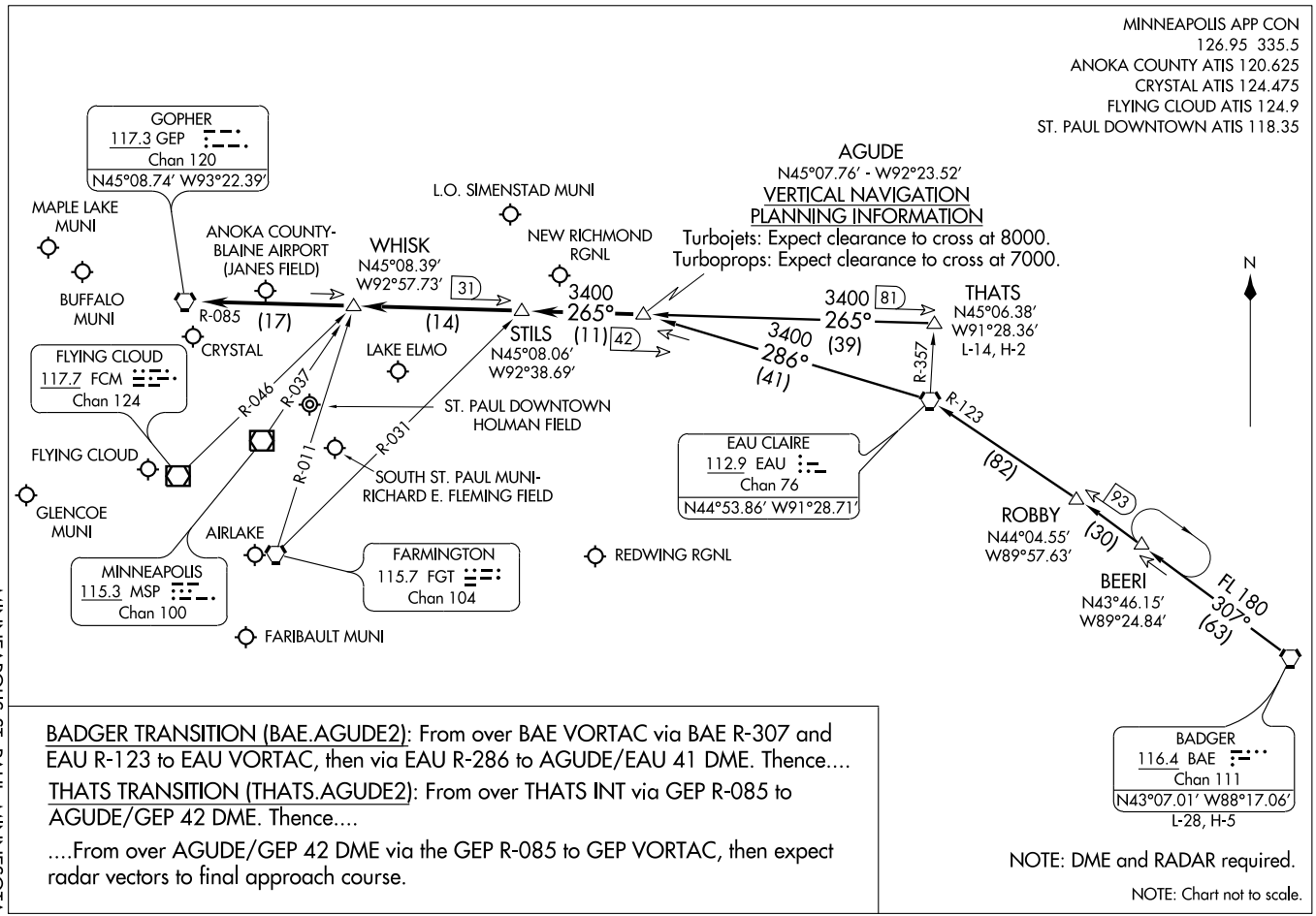
NODINE TRANSITION (ZMBRO3.ODI): From over ZMBRO INT via ODI R-301 to ODI VORTAC.

NOTE: RADAR Required

NOTE: Chart not to scale.

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

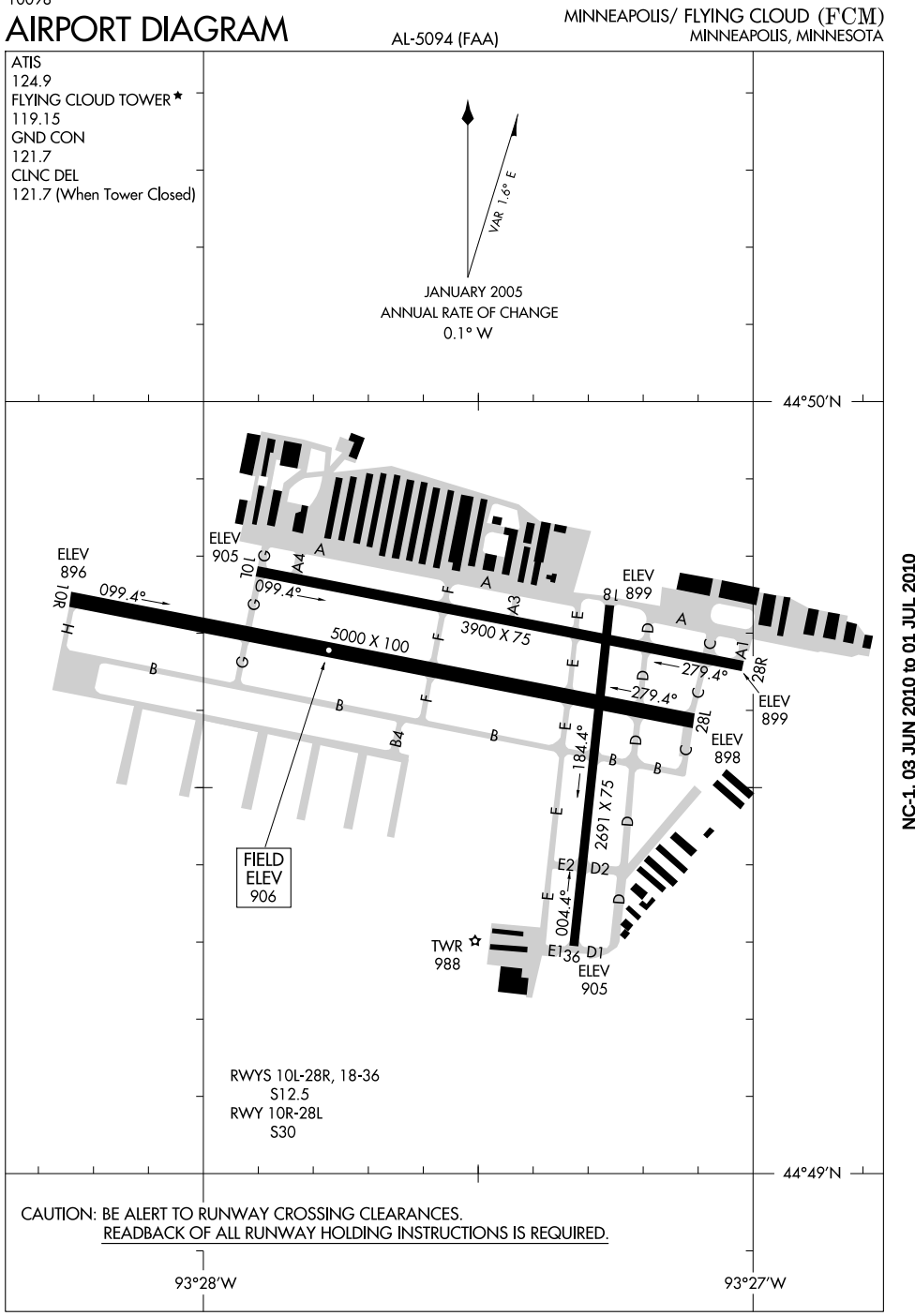
NOTE: DME and RADAR required.

NOTE: Chart not to scale.

AIRPORT DIAGRAM

AL-5094 (FAA)

MINNEAPOLIS/ FLYING CLOUD (FCM)
MINNEAPOLIS, MINNESOTA



NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-FCM	APP CRS	Rwy Idg	5000
109.7	098°	TDZE	905
		Apt Elev	906

COPTER ILS or LOC RWY 10R

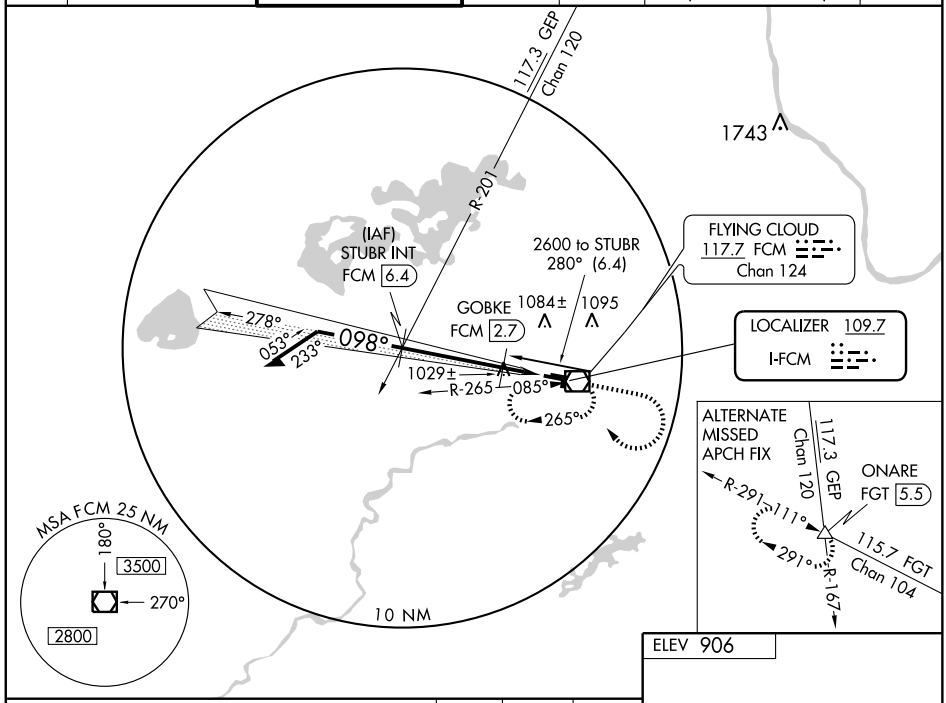
MINNEAPOLIS/ FLYING CLOUD (FCM)

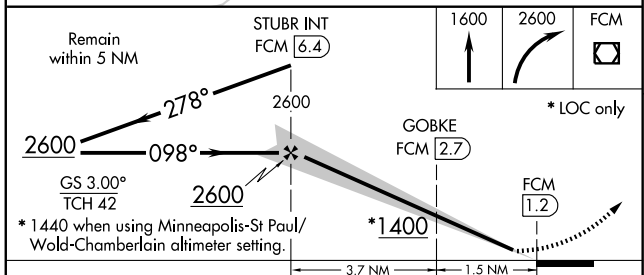
For inoperative MALSR increase visibility to ½ mile. When local altimeter setting not received, use Minneapolis-St Paul Intl-Wold Chamberlain altimeter setting and increase DA 34 feet and all MDA 40 feet.

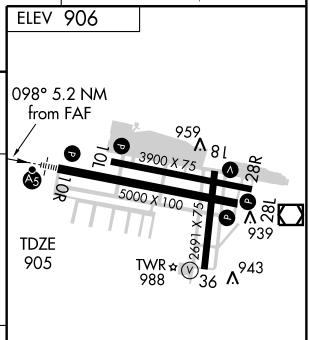
MALSR

MISSED APPROACH: Climb to 1600 then climbing right turn to 2600 direct FCM VOR/DME and hold, continue climb-in-hold to 2600.

ATIS	MINNEAPOLIS APP CON	FLYING CLOUD TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
124.9	134.7 357.4	119.15 (CTAF) L	121.7	121.7	121.7 (When tower closed)	122.95







CATEGORY	COPTER	B	C	D
H-ILS 10R	1105- ¼ 200 (200- ¼)	NA		
H-LOC 10R	1400- ¼ 495 (500- ¼)	NA		
GOBKE FIX MINIMUMS				
H-LOC 10R	1280- ¼ 375 (400- ¼)	NA		

HIRL Rwy 10R-28L L
MIRL Rwys 10L-28R and 18-36 L
REIL Rwys 18, 28L, and 36 L

FAF to MAP 5.2 NM

Knots	45	60	75	90	105
Min:Sec	6:56	5:12	4:10	3:28	2:58

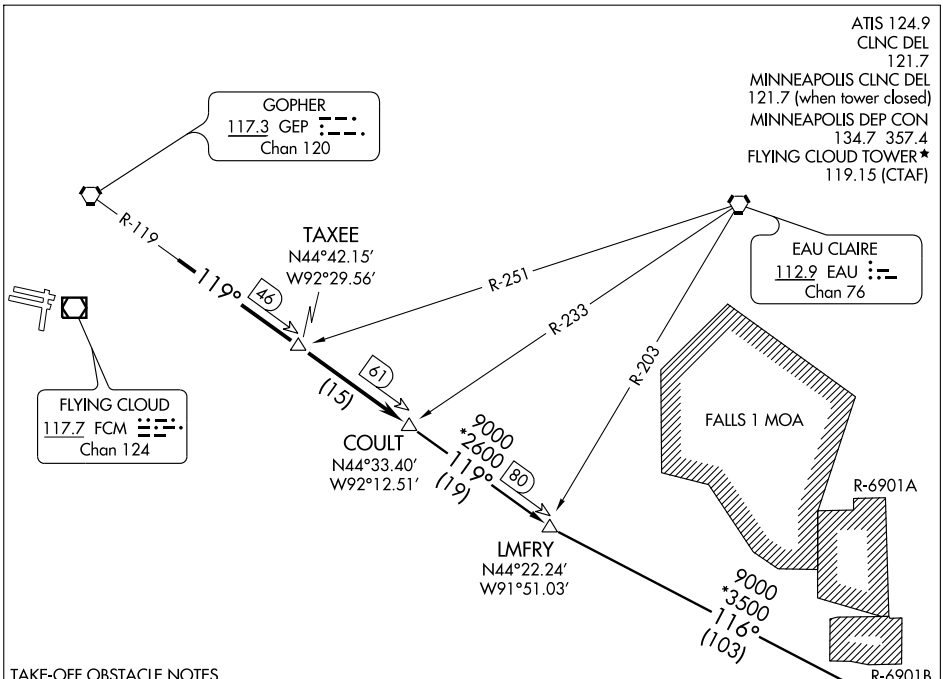
NC-1. 03 JUN 2010 to 01 JUL 2010

(COULT3.COULT) 10154

COULT THREE DEPARTURE

SL-5094 (FAA)

MINNEAPOLIS/ FLYING CLOUD (FCM)
MINNEAPOLIS, MINNESOTA



TAKE-OFF OBSTACLE NOTES

RWY 10L: Multiple antennas on hangars beginning 270' from DER, 330' left of centerline, up to 26' AGL/932' MSL. Tree 682' from DER, 668' right of centerline, 26' AGL/932' MSL.

RWY 10R: Multiple OL on poles beginning 287' from DER, 345' right of centerline, up to 36' AGL/939' MSL. Hangar 150' from DER, 422' right of centerline, 21' AGL/920' MSL. Antenna on building 536' from DER, 263' right of centerline, 14' AGL/913' MSL.

RWY 18: Multiple trees beginning 338' from DER, 166' left of centerline, up to 62' AGL/961' MSL. OL on fence 176' from DER, 127' left of centerline, 10' AGL/910' MSL. Vehicle and road 198' from DER, 196' left of centerline, 15' AGL/918' MSL. Floodlight 148' from DER, 374' right of centerline, 38' AGL/938' MSL. OL on hangar 282' from DER, 317' right of centerline, 37' AGL/937' MSL.

RWY 28R: Hangar 259' from DER. 355' right of centerline, 18' AGL/931' MSL.

RWY 36: Wind vane 923' from DER, 404' left of centerline, 61' AGL/960' MSL. Vent on building 943' from DER, 295' left of centerline, 44' AGL/943' MSL. Pole 714' from DER, 351' left of centerline, 33' AGL/932' MSL. Multiple trees beginning 504' from DER, 324' right of centerline, up to 67' AGL/966' MSL.

TAKE-OFF MINIMUMS

Rwy 10L, 28R, 10R, 28L, 18, 36: Standard.

NOTE: RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to intercept GEP R-119 to COULT INT/GEP 61 DME, thence

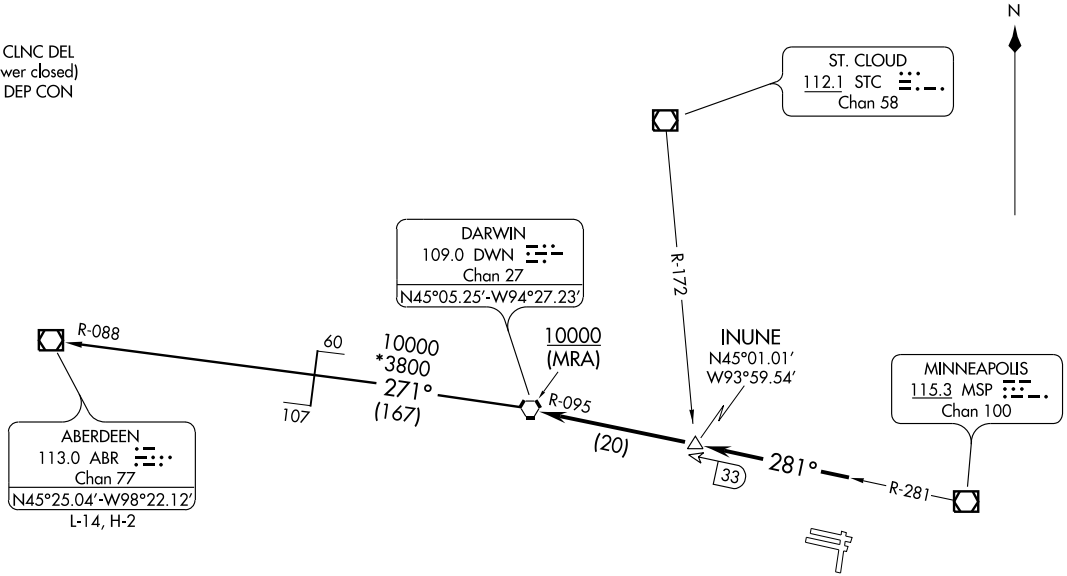
. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

DELLS TRANSITION (COULT3.DLL): From over COULT INT via GEP R-119 to LMFRY, then via DLL R-296 to DLL VORTAC.

NC-1, 03 JUN 2010 to 01 JUL 2010

DARWIN THREE DEPARTURE (DWN3.DWN) 10042

ATIS 124.9
CLNC DEL
121.7
MINNEAPOLIS CLNC DEL
121.7 (when tower closed)
MINNEAPOLIS DEP CON
134.7 357.4



NOTE: RADAR required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

TAKE-OFF MINIMUMS
Rwy 10L, 10R, 18, 28L, 28R, 36: Standard.

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-281 and DWN R-095 to DWN VORTAC, thence

. . . . via transition or assigned route. Expectclearance to filed altitude/flight level 10 (ten) minutes after departure.

ABERDEEN TRANSITION (DWN3.ABR): From over DWN VORTAC via DWN R-271 and ABR R-088 to ABR VOR/DME.

TAKE-OFF OBSTACLE NOTES

RWY 10L: Multiple antennas on hangars beginning 270' from DER, 330' left of centerline, up to 26' AGL/932' MSL.
Tree 682' from DER, 668' right of centerline, 26' AGL/932' MSL.

RWY 10R: Multiple OL on poles beginning 287' from DER, 345' right of centerline, up to 36' AGL/939' MSL.
Hangar 150' from DER, 422' right of centerline, 21' AGL/920' MSL.
Antenna on building 536' from DER, 263' right of centerline, 14' AGL/913' MSL.

RWY 18: Multiple trees beginning 338' from DER, 166' left of centerline, up to 62' AGL/961' MSL.
OL on fence 176' from DER, 127' left of centerline, 10' AGL/910' MSL.
Vehicle and road 198' from DER, 196' left of centerline, 15' AGL/918' MSL.
Floodlight 148' from DER, 374' right of centerline, 38' AGL/938' MSL.
OL on hangar 282' from DER, 317' right of centerline, 37' AGL/937' MSL.

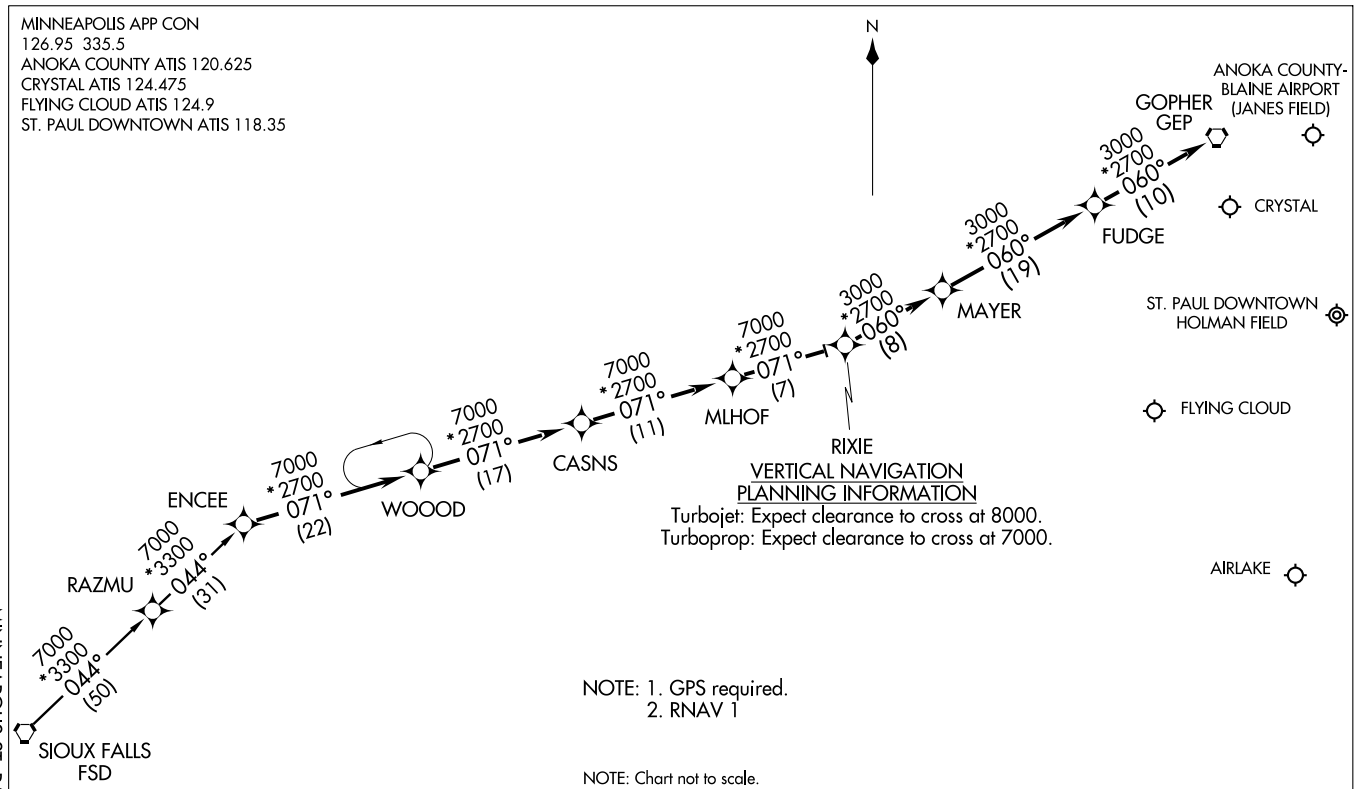
RWY 28R: Hanger 259' from DER, 355' right of centerline, 18' AGL/931' MSL.

RWY 36: Wind vane 923' from DER, 404' left of centerline, 61' AGL/960' MSL.
Vent on building 943' from DER, 295' left of centerline, 44' AGL/943' MSL.
Pole 714' from DER, 351' left of centerline, 33' AGL/932' MSL.
Multiple trees beginning 504' from DER, 324' right of centerline, up to 67' AGL/966' MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

ENCEE ONE ARRIVAL (RNAV)

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



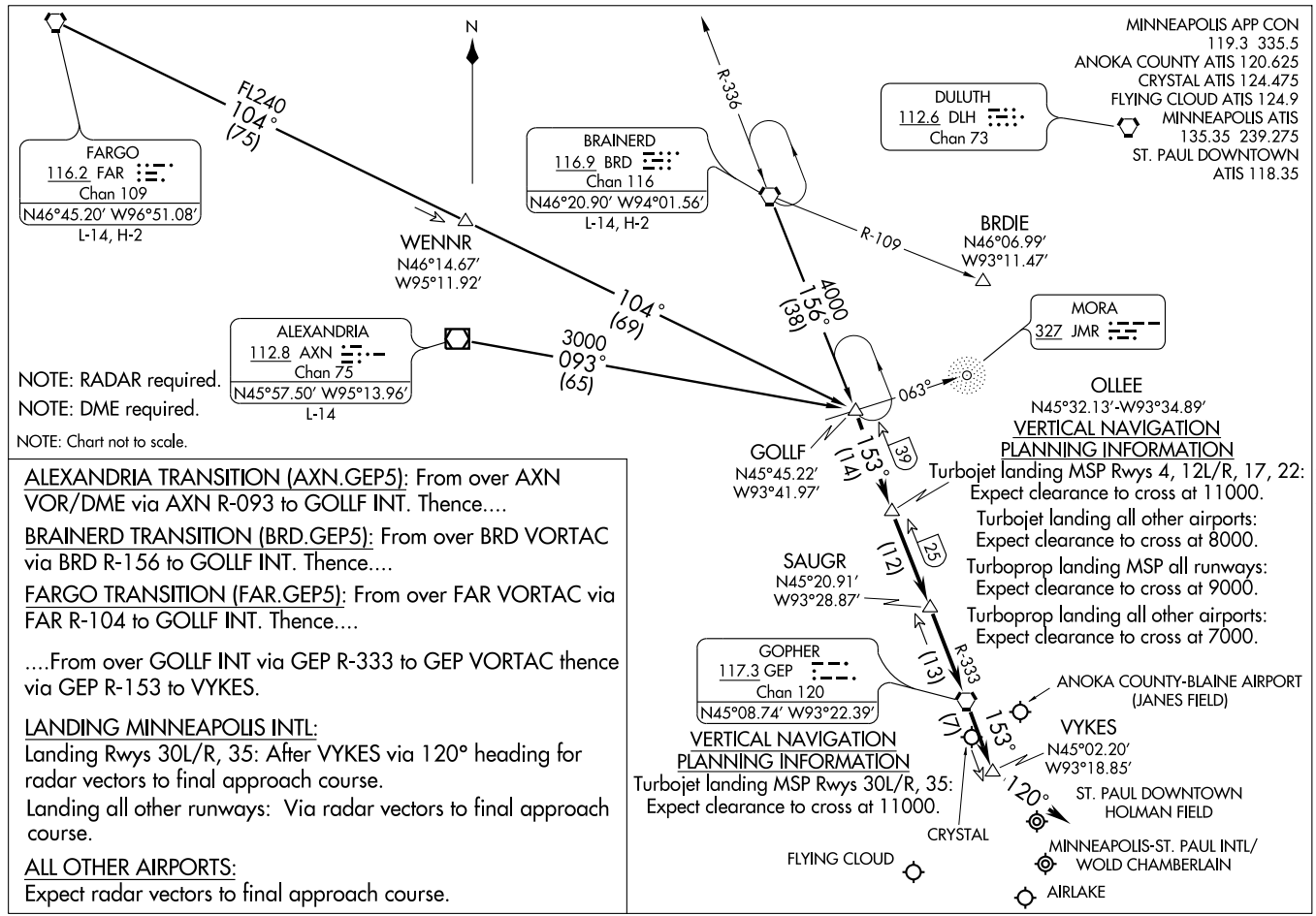
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 8000.
Turboprop: Expect clearance to cross at 7000.

NOTE: 1. GPS required.
2. RNAV 1

NOTE: Chart not to scale.

SIOUX FALLS TRANSITION (FSD.ENCEE1)

From over ENCEE WP via 071° track to RIXIE WP, thence via 060° track to GEP VORTAC, thence expect radar vectors to final approach course.


GOPHER FIVE ARRIVAL (GEP.GEP5) 08157
ST-264 (FAA)
MINNEAPOLIS, MINNESOTA
MINNEAPOLIS APP CON
119.3 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
MINNEAPOLIS ATIS
135.35 239.275
ST. PAUL DOWNTOWN
ATIS 118.35
N
FARGO
116.2 FAR
Chan 109
N46°45.20' W96°51.08'
L-14, H-2
FL240
104°
(75)
WENNR
N46°14.67'
W95°11.92'
BRAINERD
116.9 BRD
Chan 116
N46°20.90' W94°01.56'
L-14, H-2
R-336
DULUTH
112.6 DLH
Chan 73
R-109
BRDIE
N46°06.99'
W93°11.47'
4000
156°
(38)
MORA
327 JMR
ALEXANDRIA
112.8 AXN
Chan 75
N45°57.50' W95°13.96'
L-14
3000
093°
(65)
104°
(69)
063°
OLLEE
N45°32.13'-W93°34.89'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 4, 12L/R, 17, 22:
Expect clearance to cross at 11000.
Turbojet landing all other airports:
Expect clearance to cross at 8000.
Turboprop landing MSP all runways:
Expect clearance to cross at 9000.
Turboprop landing all other airports:
Expect clearance to cross at 7000.
GOLLF
N45°45.22'
W93°41.97'
153°
(14)
39
SAUGR
N45°20.91'
W93°28.87'
(12)
25
R-333
(13)
GOPHER
117.3 GEP
Chan 120
N45°08.74' W93°22.39'
(7)
153°
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 30L/R, 35:
Expect clearance to cross at 11000.
ANOKA COUNTY-BLAINE AIRPORT
(JANES FIELD)
VYKES
N45°02.20'
W93°18.85'
120°
ST. PAUL DOWNTOWN
HOLMAN FIELD
CRYSTAL
MINNEAPOLIS-ST. PAUL INTL/
WOLD CHAMBERLAIN
FLYING CLOUD
AIRLAKE
NOTE: RADAR required.
NOTE: DME required.
NOTE: Chart not to scale.
ALEXANDRIA TRANSITION (AXN.GEP5): From over AXN VOR/DME via AXN R-093 to GOLLF INT. Thence....
BRAINERD TRANSITION (BRD.GEP5): From over BRD VORTAC via BRD R-156 to GOLLF INT. Thence....
FARGO TRANSITION (FAR.GEP5): From over FAR VORTAC via FAR R-104 to GOLLF INT. Thence....
....From over GOLLF INT via GEP R-333 to GEP VORTAC thence via GEP R-153 to VYKES.
LANDING MINNEAPOLIS INTL:
Landing Rwys 30L/R, 35: After VYKES via 120° heading for radar vectors to final approach course.
Landing all other runways: Via radar vectors to final approach course.
ALL OTHER AIRPORTS:
Expect radar vectors to final approach course.

LOC I-FCM	APP CRS	Rwy Idg	5000
109.7	098°	TDZE	905
		Apt Elev	906

ILS or LOC RWY 10R

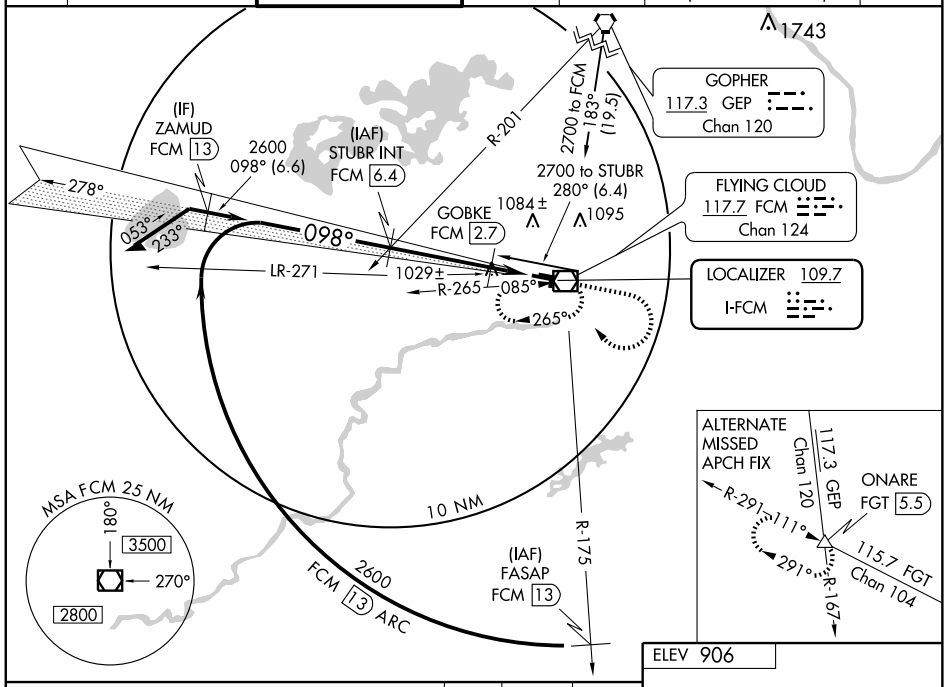
MINNEAPOLIS/ FLYING CLOUD (FCM)

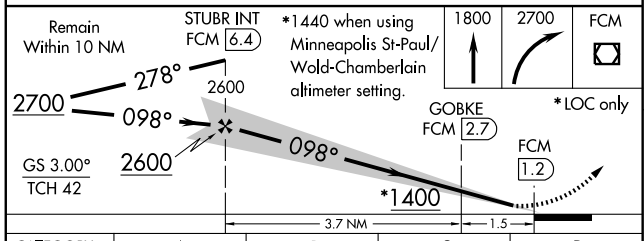
When local altimeter setting not received, use Minneapolis-St Paul Intl/ Wold Chamberlain altimeter setting and increase DA 34 feet and all MDA 40 feet, increase S-LOC Cat C and D visibility ¼ mile, GOBKE FIX minimums: Increase S-LOC Cat C visibility ¼ mile.

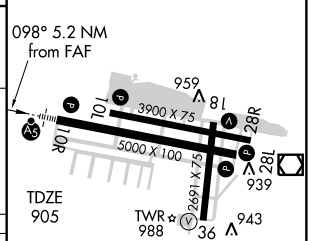
MALSR

MISSED APPROACH: Climb to 1800 then climbing right turn to 2700 direct FCM VOR/DME and hold, continue climb-in-hold to 2700.

ATIS	MINNEAPOLIS APP CON	FLYING CLOUD TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
124.9	134.7 357.4	119.15 (CTAF) L	121.7	121.7	121.7 (When tower closed)	122.95





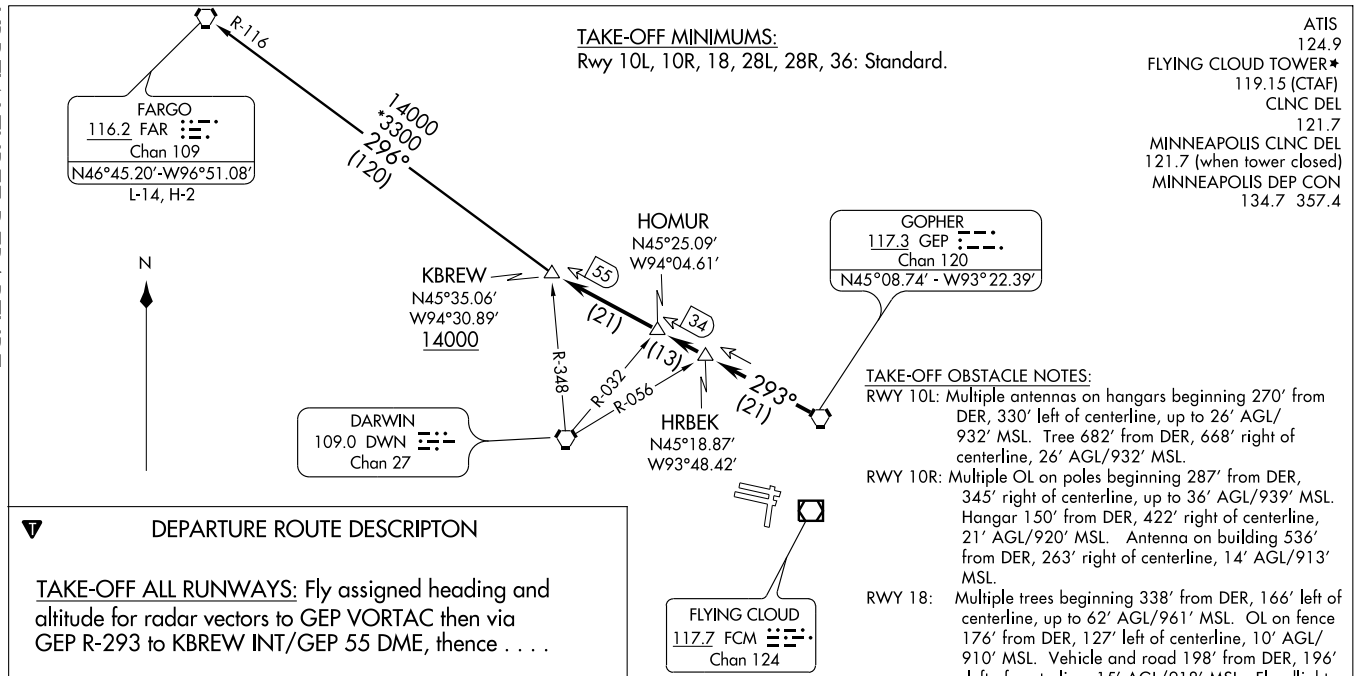


CATEGORY	A	B	C	D
S-ILS 10R	1105-½ 200 (200-½)			
S-LOC 10R	1400-½ 495 (500-½)		1400-¾ 495 (500-¾)	1400-1 495 (500-1)
CIRCLING	1400-1 494 (500-1)		1400-1½ 494 (500-1½)	1460-2 554 (600-2)
GOBKE FIX MINIMUMS				
S-LOC 10R	1280-½ 375 (400-½)			1280-¾ 375 (400-¾)
CIRCLING	1320-1 414 (500-1)	1360-1 454 (500-1)	1360-1½ 454 (500-1½)	1460-2 554 (600-2)

HIRL Rwy 10R-28L L
MIRL Rwys 10L-28R and 18-36 L
REIL Rwys 18, 28L, and 36 L

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

NC-1. 03 JUN 2010 to 01 JUL 2010



TAKE-OFF MINIMUMS:
Rwy 10L, 10R, 18, 28L, 28R, 36: Standard.

ATIS
124.9
FLYING CLOUD TOWER*
119.15 (CTAF)
CLNC DEL
121.7
MINNEAPOLIS CLNC DEL
121.7 (when tower closed)
MINNEAPOLIS DEP CON
134.7 357.4

TAKE-OFF OBSTACLE NOTES:

RWY 10L: Multiple antennas on hangars beginning 270' from DER, 330' left of centerline, up to 26' AGL/ 932' MSL. Tree 682' from DER, 668' right of centerline, 26' AGL/932' MSL.

RWY 10R: Multiple OL on poles beginning 287' from DER, 345' right of centerline, up to 36' AGL/939' MSL. Hangar 150' from DER, 422' right of centerline, 21' AGL/920' MSL. Antenna on building 536' from DER, 263' right of centerline, 14' AGL/913' MSL.

RWY 18: Multiple trees beginning 338' from DER, 166' left of centerline, up to 62' AGL/961' MSL. OL on fence 176' from DER, 127' left of centerline, 10' AGL/ 910' MSL. Vehicle and road 198' from DER, 196' left of centerline, 15' AGL/918' MSL. Floodlight 148' from DER, 374' right of centerline, 38' AGL/938' MSL. OL on hangar 282' from DER, 317' right of centerline, 37' AGL/937' MSL.

RWY 28R: Hangar 259' from DER, 355' right of centerline, 18' AGL/931' MSL.

RWY 36: Wind vane 923' from DER, 404' left of centerline, 61' AGL/960' MSL. Vent on building 943' from DER, 295' left of centerline, 44' AGL/943' MSL. Pole 714' from DER, 351' left of centerline, 33' AGL/932' MSL. Multiple trees beginning 504' from DER, 324' right of centerline, up to 67' AGL/ 966' MSL.

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to GEP VORTAC then via GEP R-293 to KBREW INT/GEP 55 DME, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

FARGO TRANSITION (KBREW3.FAR):
From over KBREW INT via FAR R-116 to FAR VORTAC.

NOTE: RADAR required.
NOTE: Chart not to scale.

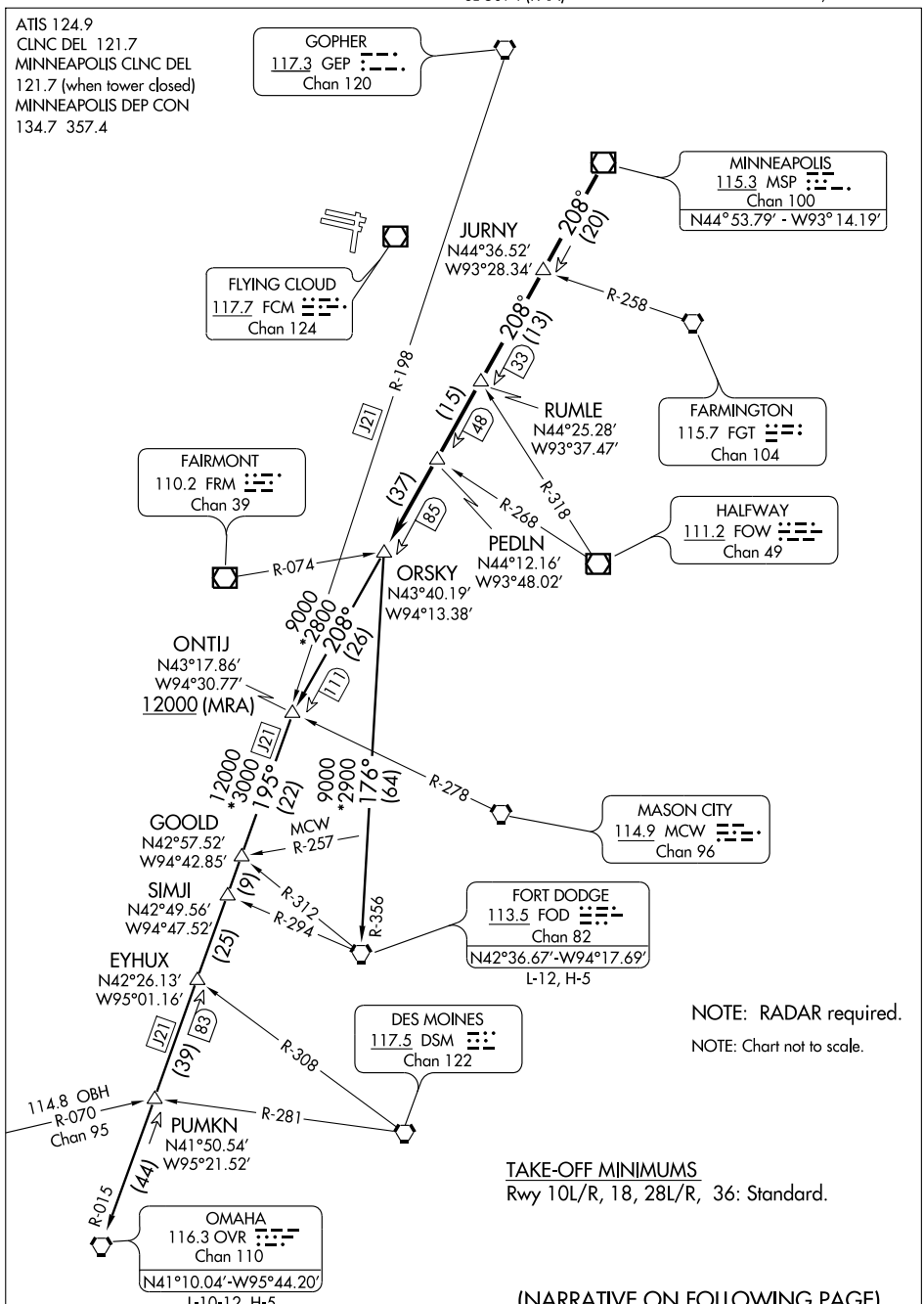
(ORSKY4.ORSKY) 10154

ORSKY FOUR DEPARTURE

SL-5094 (FAA)

MINNEAPOLIS/ FLYING CLOUD (FCM)
MINNEAPOLIS, MINNESOTA

ATIS 124.9
CLNC DEL 121.7
MINNEAPOLIS CLNC DEL
121.7 (when tower closed)
MINNEAPOLIS DEP CON
134.7 357.4



NOTE: RADAR required.

NOTE: Chart not to scale.

TAKE-OFF MINIMUMS
Rwy 10L/R, 18, 28L/R, 36: Standard.

(NARRATIVE ON FOLLOWING PAGE)

NC-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-208 to ORSKY INT/MSP 85 DME, thence via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

FORT DODGE TRANSITION (ORSKY4.FOD): From over ORSKY INT via FOD R-356 to FOD VORTAC.

OMAHA TRANSITION (ORSKY4.OVR): From over ORSKY INT via MSP R-208 to ONTIJ INT then via OVR R-015 to OVR VORTAC.

TAKE-OFF OBSTACLE NOTES

RWY 10L: Multiple antennas on hangars beginning 270' from DER, 330' left of centerline, up to 26' AGL/932' MSL.
Tree 682' from DER, 668' right of centerline, 26' AGL/932' MSL.

RWY 10R: Multiple OL on poles beginning 287' from DER, 345' right of centerline, up to 36' AGL/939' MSL.
Hangar 150' from DER, 422' right of centerline, 21' AGL/920' MSL.
Antenna on building 536' from DER, 263' right of centerline, 14' AGL/913' MSL.

RWY 18: Multiple trees beginning 338' from DER, 166' left of centerline, up to 62' AGL/961' MSL.
OL on fence 176' from DER, 127' left of centerline, 10' AGL/910' MSL.
Vehicle and road 198' from DER, 196' left of centerline, 15' AGL/918' MSL.
Floodlight 148' from DER, 374' right of centerline, 38' AGL/938' MSL.
OL on hangar 282' from DER, 317' right of centerline, 37' AGL/937' MSL.

RWY 28R: Hangar 259' from DER, 355' right of centerline, 18' AGL/931' MSL.

RWY 36: Wind vane 923' from DER, 404' left of centerline, 61' AGL/960' MSL.
Vent on building 943' from DER, 295' left of centerline, 44' AGL/943' MSL.
Pole 714' from DER, 351' left of centerline, 33' AGL/932' MSL.
Multiple trees beginning 504' from DER, 324' right of centerline, up to 67' AGL/966' MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 42510 W10A	APP CRS 098°	Rwy Idg 3900 TDZE 905 Apt Elev 906

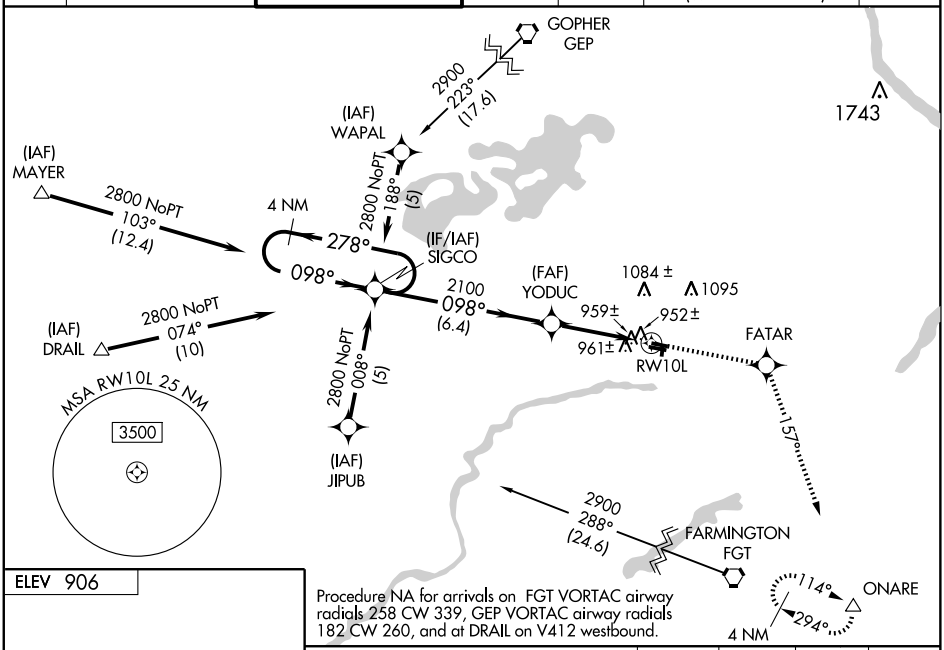
RNAV (GPS) RWY 10L

FLYING CLOUD (FCM)

Baro-VNAV NA when using Minneapolis-St. Paul Intl/Wold Chamberlain altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 46°C (114°F). DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Minneapolis-St. Paul Intl/Wold Chamberlain altimeter setting and increase all DA 34 feet and all MDA 40 feet and LNAV Cat D visibility ¼ mile.

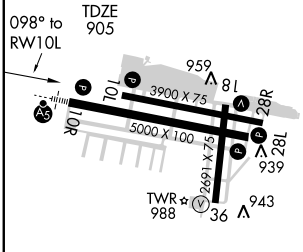
Climb to 2900 direct FATAR and via 157° track to ONARE and hold.

ATIS	MINNEAPOLIS APP CON	FLYING CLOUD TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
124.9	134.7 357.4	119.15 (CTAF) L	121.7	121.7	121.7 (When tower closed)	122.95

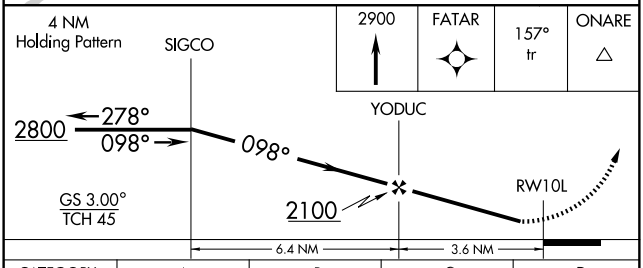


Procedure NA for arrivals on FGT VORTAC airway radials 258 CW 339, GEP VORTAC airway radials 182 CW 260, and at DRAIL on V412 westbound.

ELEV 906



HIRL Rwy 10R-28L L
MIRL Rwys 10L-28R and 18-36 L
REIL Rwys 18, 28L, and 36 L



CATEGORY	A	B	C	D
LPV DA	1186-1 281 (300-1)			
LNAV/VNAV DA	1229-1¼ 324 (400-1¼)			
LNAV MDA	1240-1 335 (400-1)			
CIRCLING	1300-1 394 (400-1)	1360-1 454 (500-1)	1360-1½ 454 (500-1½)	1460-2 554 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	5000
278°	TDZE	906
	Apt Elev	906

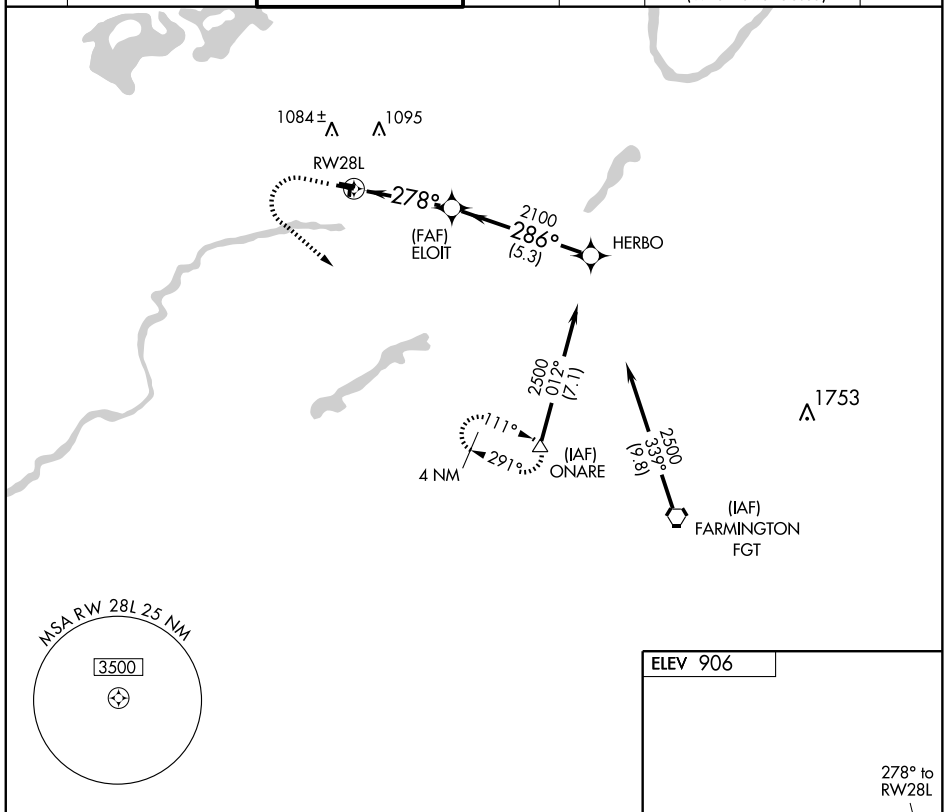
RNAV (GPS) RWY 28L

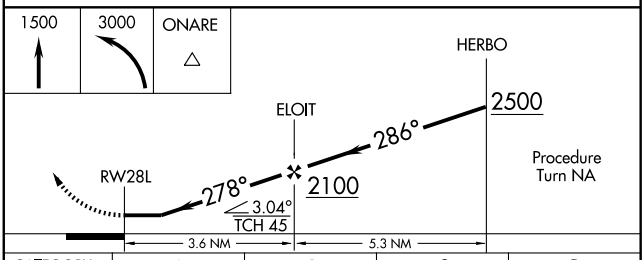
MINNEAPOLIS/ FLYING CLOUD (FCM)

GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

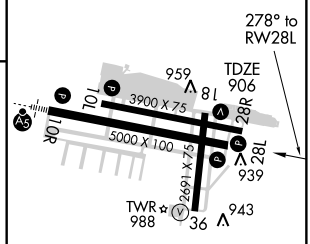
MISSED APPROACH: Climb to 1500 then climbing left turn to 3000 direct ONARE WP and hold.

ATIS	MINNEAPOLIS APP CON	FLYING CLOUD TOWER *	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
124.9	134.7 357.4	119.15 (CTAF) L	121.7	121.7	121.7 (When tower closed)	122.95





CATEGORY	A	B	C	D
LNAV MDA	1280-1 374 (400-1)			1280-1¼ 374 (400-1¼)
CIRCLING	1320-1 414 (500-1)	1360-1 454 (500-1)	1360-1½ 454 (500-1½)	1460-2 554 (600-2)



HIRL Rwy 10R-28L L
MIRL Rwys 10L-28R and 18-36 L
REIL Rwys 18, 28L, and 36 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 99709 W28A	APP CRS 278°	Rwy Idg 3900 TDZE 900 Apt Elev 906

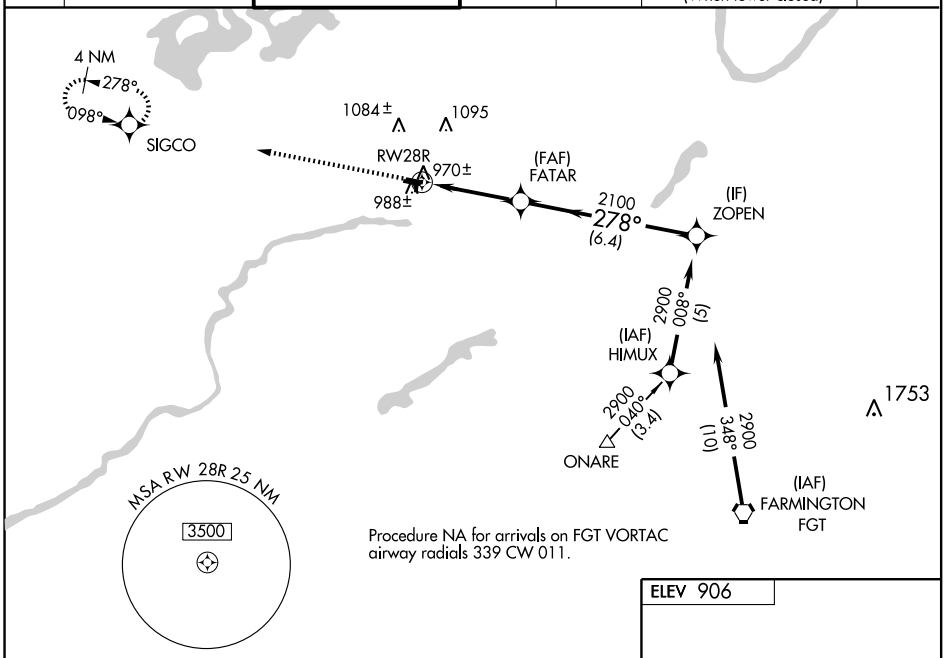
RNAV (GPS) RWY 28R

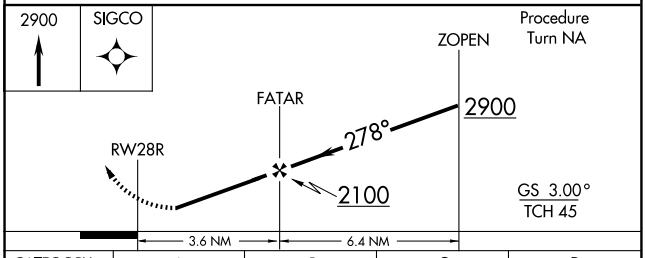
MINNEAPOLIS/ FLYING CLOUD (FCM)

DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. When local altimter setting not received, use Minneapolis-St. Paul Intl/ Wold Chamberlain altimeter setting and increase all DA 34 feet and all MDA 40 feet and LNAV Cat D visibility ¼ mile. Baro-VNAV NA when using Minneapolis-St Paul Intl/Wold Chamberlain altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16° C (4°F) or above 46°C (114°F).

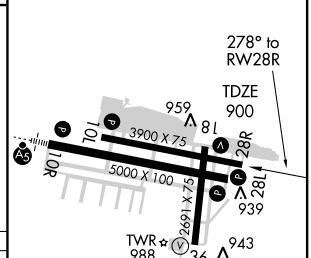
MISSED APPROACH: Climb to 2900 direct SIGCO and hold.

ATIS	MINNEAPOLIS APP CON	FLYING CLOUD TOWER *	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
124.9	134.7 357.4	119.15 (CTAF) L	121.7	121.7	121.7 (When tower closed)	122.95





CATEGORY	A	B	C	D
LPV DA		1150-1	250 (300-1)	
LNAV/ VNAV DA		1240-1¼	340 (400-1¼)	
LNAV MDA		1240-1	340 (400-1)	
CIRCLING	1300-1 394 (400-1)	1360-1 454 (500-1)	1360-1½ 454 (500-1½)	1460-2 554 (600-2)



HIRL Rwy 10R-28L L
MIRL Rwys 10L-28R and 18-36 L
REIL Rwys 18, 28L, and 36 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	2691
003°	TDZE	905
	Apt Elev	906

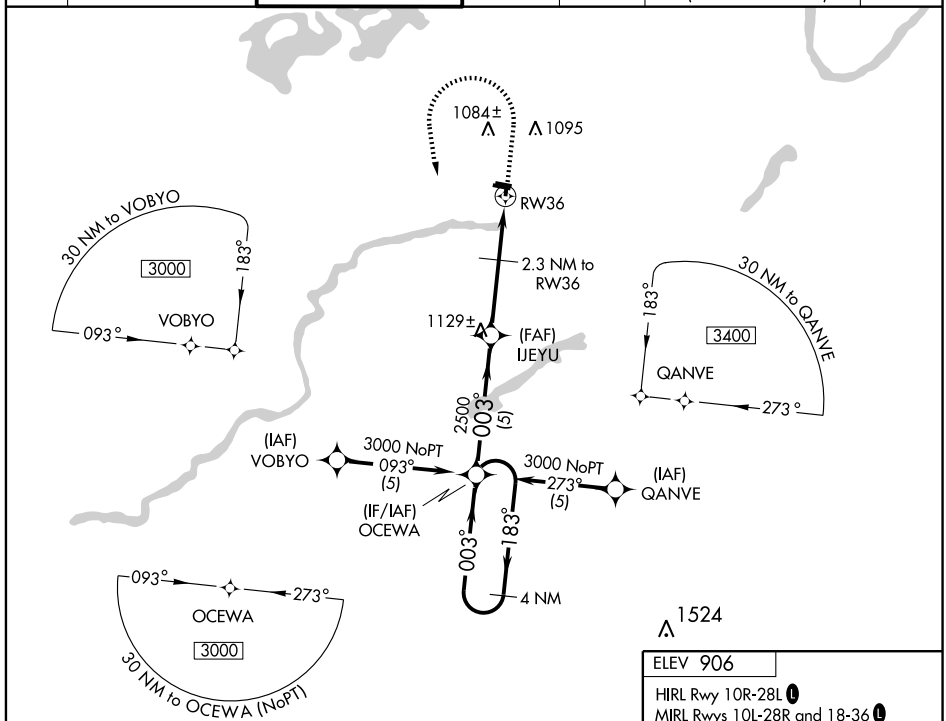
RNAV (GPS) RWY 36

MINNEAPOLIS/ FLYING CLOUD (FCM)

GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

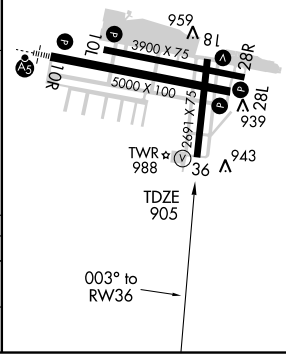
MISSED APPROACH: Climb to 2000 then climbing left turn to 3000 direct OCEWA WP and hold.

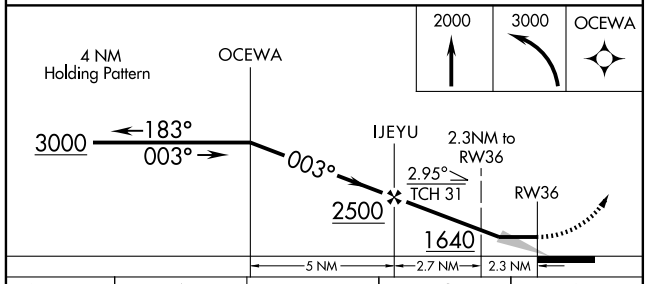
ATIS	MINNEAPOLIS APP CON	FLYING CLOUD TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
124.9	134.7 357.4	119.15 (CTAF) L	121.7	121.7	121.7 (When tower closed)	122.95



ELEV 906

HIRL Rwy 10R-28L L
MIRL Rwys 10L-28R and 18-36 L
REIL Rwys 18, 28L, and 36 L



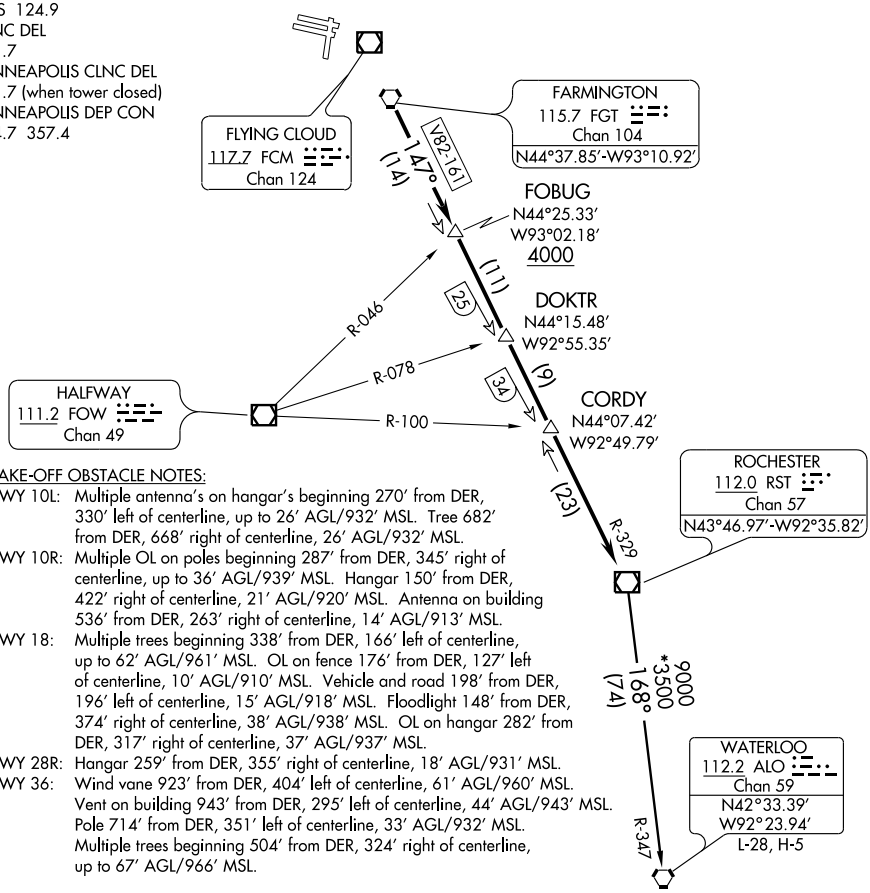


CATEGORY	A	B	C	D
LNAV MDA	1240-1 335 (400-1)			NA
CIRCLING	1320-1 414 (500-1)	1360-1 454 (500-1)	1360-1½ 454 (500-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

ROCHESTER FOUR DEPARTURE

ATIS 124.9
CLNC DEL
121.7
MINNEAPOLIS CLNC DEL
121.7 (when tower closed)
MINNEAPOLIS DEP CON
134.7 357.4



TAKE-OFF OBSTACLE NOTES:

RWY 10L: Multiple antenna's on hangar's beginning 270' from DER, 330' left of centerline, up to 26' AGL/932' MSL. Tree 682' from DER, 668' right of centerline, 26' AGL/932' MSL.

RWY 10R: Multiple OL on poles beginning 287' from DER, 345' right of centerline, up to 36' AGL/939' MSL. Hangar 150' from DER, 422' right of centerline, 21' AGL/920' MSL. Antenna on building 536' from DER, 263' right of centerline, 14' AGL/913' MSL.

RWY 18: Multiple trees beginning 338' from DER, 166' left of centerline, up to 62' AGL/961' MSL. OL on fence 176' from DER, 127' left of centerline, 10' AGL/910' MSL. Vehicle and road 198' from DER, 196' left of centerline, 15' AGL/918' MSL. Floodlight 148' from DER, 374' right of centerline, 38' AGL/938' MSL. OL on hangar 282' from DER, 317' right of centerline, 37' AGL/937' MSL.

RWY 28R: Hangar 259' from DER, 355' right of centerline, 18' AGL/931' MSL.

RWY 36: Wind vane 923' from DER, 404' left of centerline, 61' AGL/960' MSL. Vent on building 943' from DER, 295' left of centerline, 44' AGL/943' MSL. Pole 714' from DER, 351' left of centerline, 33' AGL/932' MSL. Multiple trees beginning 504' from DER, 324' right of centerline, up to 67' AGL/966' MSL.

TAKE-OFF MINIMUMS:
Rwy 10L, 10R, 18, 28L, 28R, 36: Standard.

NOTE: RADAR required.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS:
Fly assigned heading and altitude for radar vectors to FGT VORTAC then via FGT R-147 and RST R-329 to RST VOR/DME. Cross FOBUG INT/FGT 14 DME at or above 4000, Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

WATERLOO TRANSITION (RST4.ALO): From over RST VOR/DME via RST R-168 and ALO R-347 to ALO VORTAC.

NC-1, 03 JUN 2010 to 01 JUL 2010

SCHEP THREE DEPARTURE

TAKE-OFF OBSTACLE NOTES:

RWY 10L: Multiple antenna's on hangar's beginning 270' from DER, 330' left of centerline, up to 26' AGL/932' MSL. Tree 682' from DER, 668' right of centerline, 26' AGL/932' MSL.

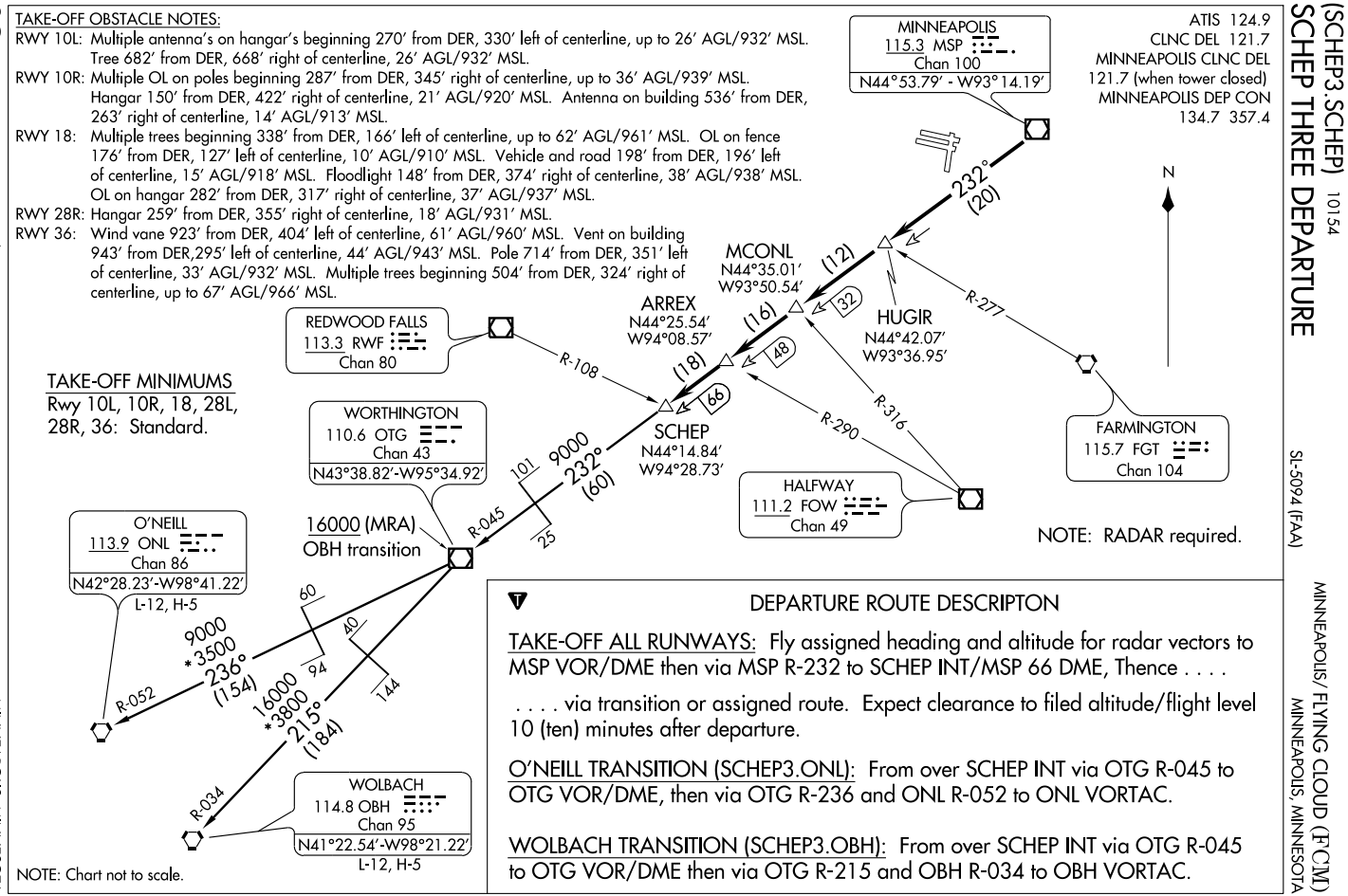
RWY 10R: Multiple OL on poles beginning 287' from DER, 345' right of centerline, up to 36' AGL/939' MSL. Hangar 150' from DER, 422' right of centerline, 21' AGL/920' MSL. Antenna on building 536' from DER, 263' right of centerline, 14' AGL/913' MSL.

RWY 18: Multiple trees beginning 338' from DER, 166' left of centerline, up to 62' AGL/961' MSL. OL on fence 176' from DER, 127' left of centerline, 10' AGL/910' MSL. Vehicle and road 198' from DER, 196' left of centerline, 15' AGL/918' MSL. Floodlight 148' from DER, 374' right of centerline, 38' AGL/938' MSL. OL on hangar 282' from DER, 317' right of centerline, 37' AGL/937' MSL.

RWY 28R: Hangar 259' from DER, 355' right of centerline, 18' AGL/931' MSL.

RWY 36: Wind vane 923' from DER, 404' left of centerline, 61' AGL/960' MSL. Vent on building 943' from DER,295' left of centerline, 44' AGL/943' MSL. Pole 714' from DER, 351' left of centerline, 33' AGL/932' MSL. Multiple trees beginning 504' from DER, 324' right of centerline, up to 67' AGL/966' MSL.

TAKE-OFF MINIMUMS
Rwy 10L, 10R, 18, 28L, 28R, 36: Standard.



DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-232 to SCHEP INT/MSP 66 DME, Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

O'NEILL TRANSITION (SCHEP3.ONL): From over SCHEP INT via OTG R-045 to OTG VOR/DME, then via OTG R-236 and ONL R-052 to ONL VORTAC.

WOLBACH TRANSITION (SCHEP3.OBH): From over SCHEP INT via OTG R-045 to OTG VOR/DME then via OTG R-215 and OBH R-034 to OBH VORTAC.

(TWOLF.TWOLF2) 10154

TWOLF TWO ARRIVAL

ST-264 (FAA)

MINNEAPOLIS, MINNESOTA

MINNEAPOLIS APP CON
126.95 335.5
118.72 (MSP RWY 35)
MINNEAPOLIS ATIS
135.35 239.275
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS
118.35

L.O. SIMENSTAD MUNI
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD)
NEW RICHMOND RGNL
CRYSTAL
ST. PAUL DOWNTOWN HOLMAN FIELD
FLYING CLOUD
MINNEAPOLIS-ST. PAUL INTL/ WOLD CHAMBERLAIN
AIRLAKE

GOPHER
117.3 GEP
Chan 120

FLYING CLOUD
117.7 FCM
Chan 124
N44°49.54′-W93°27.41′

FARMINGTON
115.7 FGT
Chan 104
N44°37.86′-W93°10.92′

MANKATO
110.8 MKT
Chan 45

FORT DODGE
113.5 FOD
Chan 82
N42°36.67′-W94°17.69′
L-12, H-5

300°
R-103
330°
(11)
R-180
R-178
R-201
(8)
5000
(36)
360°
(17)
(9)
(55)
021°
5000
(10)
R-081
6000
(62)
(7)
8000
(22)
(84)
12000
358°
(28)
(112)
12000
032°
(30)
(52)
R-178
GEP
12000
*2900
032°
(22)

SLIKK
N44°47.90′
W93°17.21′

TRGET
N44°13.88′-W93°27.73′

VERTICAL NAVIGATION PLANNING INFORMATION

MSP: Expect clearance to cross at 11000.
All other airports:
Turbojets: Expect clearance to cross at 8000.
Turboprops: Expect clearance to cross at 7000.

GDNEE
N44°30.68′
W93°15.98′

PIKKL
N44°22.82′
W93°21.49′

LYNKS
N44°06.89′
W93°28.39′

KGEEE
N43°44.94′
W93°30.47′

TWOLF
N43°17.00′
W93°33.09′

TICKT
N42°53.71′
W93°59.01′

NOTE: DME and RADAR Required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NC-1, 03 JUN 2010 to 01 JUL 2010

TWOLF TWO ARRIVAL

ARRIVAL DESCRIPTION

FORT DODGE TRANSITION (FOD.TWOLF2): From over FOD VORTAC via FOD R-032 to TWOLF/FOD 52 DME, Thence

....From over TWOLF/GEP 112 DME via GEP R-178 to KGEEE/GEP 84 DME, then as depicted to TRGET INT/GEP 55 DME. Thence....

LANDING MSP RWYS 12L/R: From over TRGET INT via FGT R-201 to FGT VORTAC, then via FGT R-330 to SLIKK INT/FGT 11 DME, then via heading 300° for radar vectors to final approach course.

LANDING MSP RWYS 30L/R, 4, 22, 17, 35: From over TRGET INT via FGT R-201 to FGT VORTAC, then via radar vectors to final approach course.

LANDING ALL OTHER AIRPORTS: From over TRGET INT via FCM R-180 to FCM VOR/DME, then expect radar vectors to final approach course.

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME FCM	APP CRS	Rwy Idg	2691
117.7	035°	TDZE	905
Chan 124		Apt Elev	906

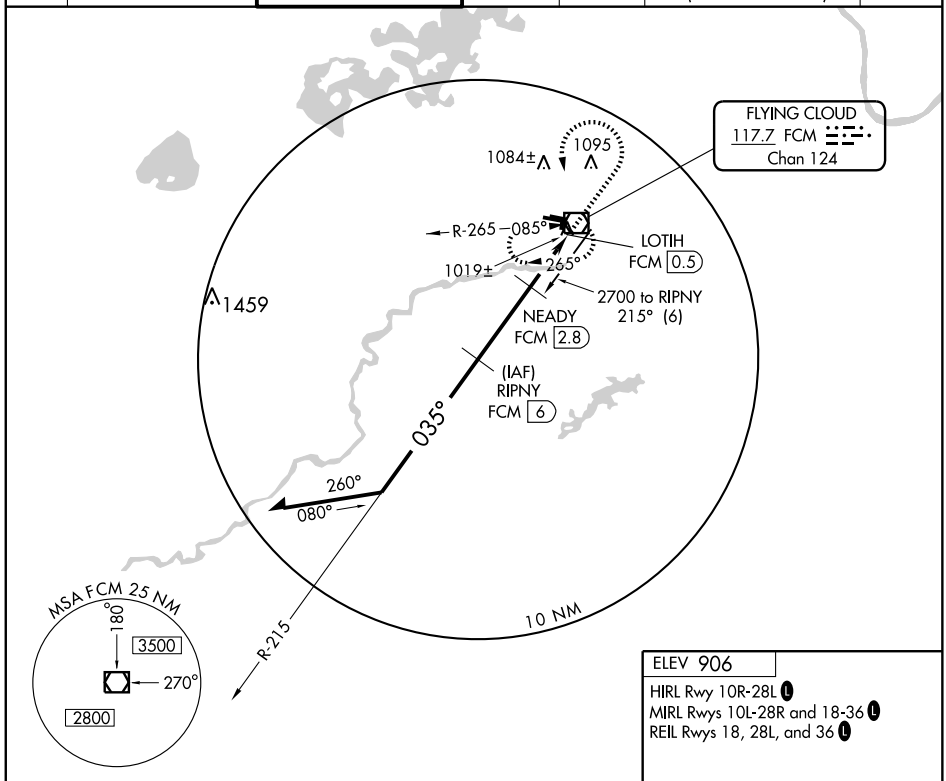
VOR/DME RWY 36

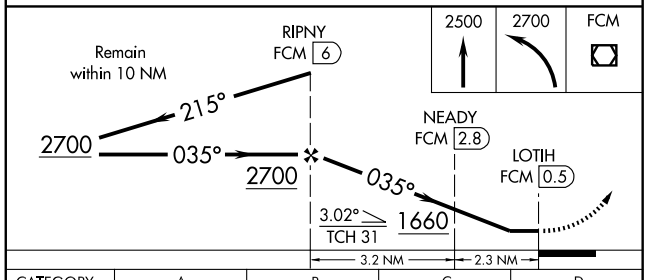
MINNEAPOLIS/ FLYING CLOUD (FCM)

Visibility reduction by helicopters NA. When local altimeter setting not received, use Minneapolis St Paul Intl/Wold Chamberlain altimeter setting and increase all MDA 40 feet and S-36 Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 2500 then climbing left turn to 2700 direct FCM VOR/DME and hold.

ATIS	MINNEAPOLIS APP CON	FLYING CLOUD TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
124.9	134.7 357.4	119.15 (CTAF) L	121.7	121.7	121.7 (When tower closed)	122.95





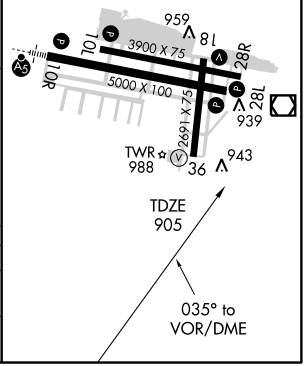
CATEGORY	A	B	C	D
S-36	1280-1 375 (400-1)			NA
CIRCLING	1320-1 414 (500-1)	1360-1 454 (500-1)	1360-1½ 454 (500-1½)	NA

ELEV 906

HIRL Rwy 10R-28L L

MIRL Rwys 10L-28R and 18-36 L

REIL Rwys 18, 28L, and 36 L



NC-1, 03 JUN 2010 to 01 JUL 2010

VOR RWY 10R

MINNEAPOLIS/ FLYING CLOUD (FCM)

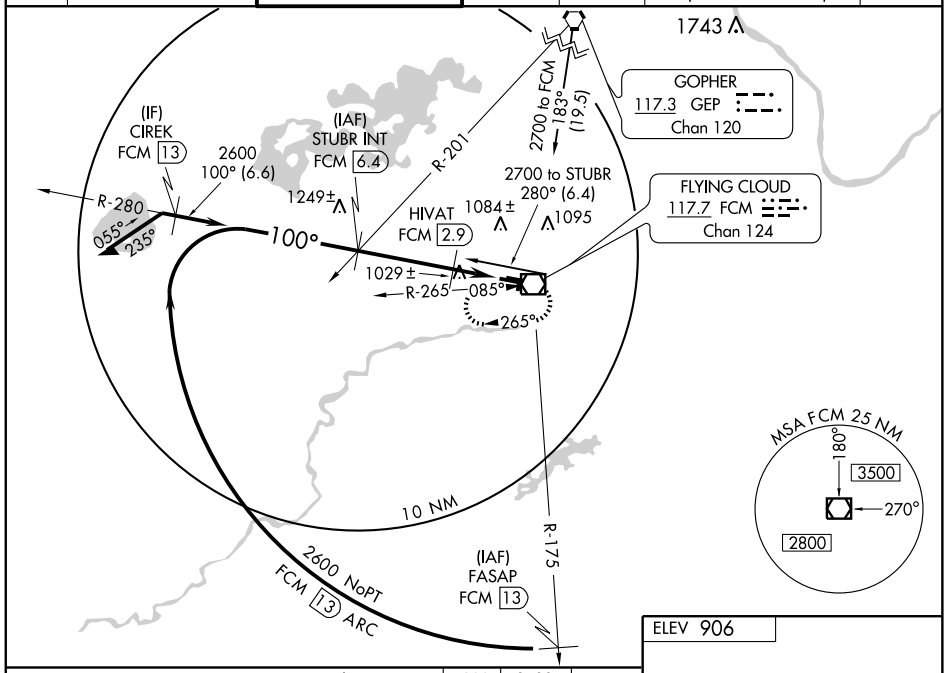
VOR/DME FCM 117.7 Chan 124	APP CRS 100°	Rwy Idg 5000 TDZE 905 Apt Elev 906

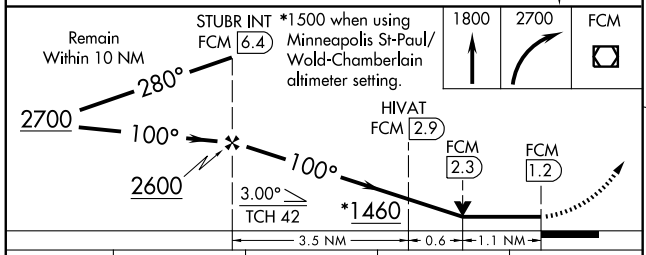
When local altimeter setting not received, use Minneapolis St-Paul/Wold-Chamberlain altimeter setting and increase all MDA 40 feet, HIVAT FIX minimums: Increase S-10R Cat C visibility ¼ mile. For inoperative MALSR, HIVAT FIX minimums: Increase S-10R Cat D visibility to 1¼ mile. VDP NA when using Minneapolis St-Paul/Wold-Chamberlain altimeter setting.

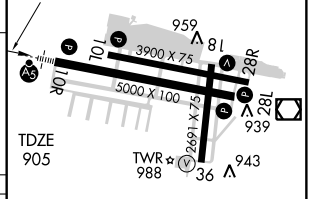
MALSR

MISSED APPROACH: Climb to 1800 then climbing right turn to 2700 direct FCM VOR/DME and hold, continue climb-in-hold to 2700.

ATIS 124.9	MINNEAPOLIS APP CON 134.7 357.4	FLYING CLOUD TOWER ★ 119.15 (CTAF) L	GND CON 121.7	CLNC DEL 121.7	MINNEAPOLIS CLNC DEL 121.7 (When tower closed)	UNICOM 122.95







CATEGORY	A	B	C	D
S-10R	1460-½ 555 (600-½)		1460-1 555 (600-1)	1460-1¼ 555 (600-1¼)
CIRCLING	1460-1 554 (600-1)		1460-1½ 554 (600-1½)	1460-2 554 (600-2)
HIVAT FIX MINIMUMS				
S-10R	1280-½ 375 (400-½)			1280-1 375 (400-1)
CIRCLING	1320-1 414 (500-1)	1360-1 454 (500-1)	1360-1½ 454 (500-1½)	1460-2 554 (600-2)

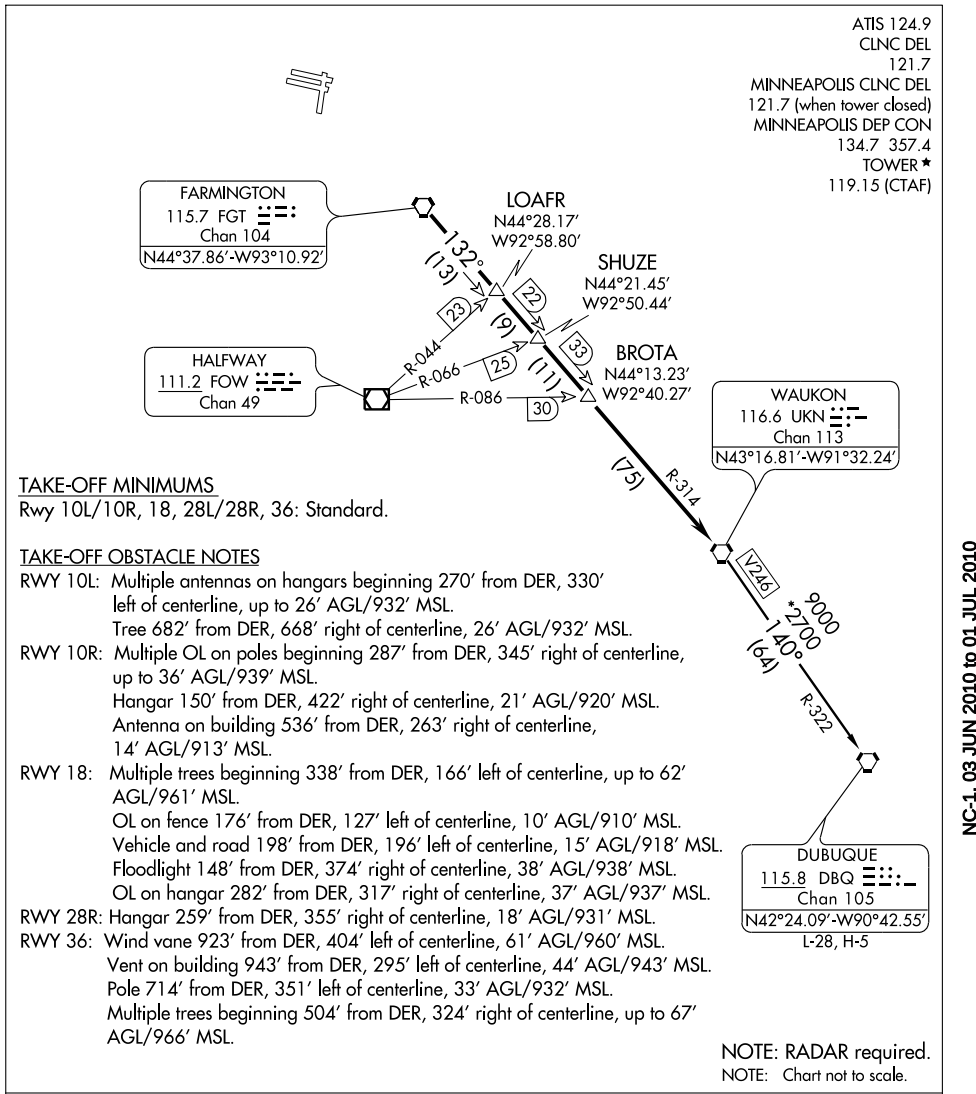
HIRL Rwy 10R-28L L
MIRL Rwys 10L-28R and 18-36 L
REIL Rwys 18, 28L, and 36 L

FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

NC-1. 03 JUN 2010 to 01 JUL 2010

WAUKON THREE DEPARTURE SL-5094 (FAA)



TAKE-OFF MINIMUMS

Rwy 10L/10R, 18, 28L/28R, 36: Standard.

TAKE-OFF OBSTACLE NOTES

RWY 10L: Multiple antennas on hangars beginning 270' from DER, 330' left of centerline, up to 26' AGL/932' MSL.
Tree 682' from DER, 668' right of centerline, 26' AGL/932' MSL.

RWY 10R: Multiple OL on poles beginning 287' from DER, 345' right of centerline, up to 36' AGL/939' MSL.
Hangar 150' from DER, 422' right of centerline, 21' AGL/920' MSL.
Antenna on building 536' from DER, 263' right of centerline, 14' AGL/913' MSL.

RWY 18: Multiple trees beginning 338' from DER, 166' left of centerline, up to 62' AGL/961' MSL.
OL on fence 176' from DER, 127' left of centerline, 10' AGL/910' MSL.
Vehicle and road 198' from DER, 196' left of centerline, 15' AGL/918' MSL.
Floodlight 148' from DER, 374' right of centerline, 38' AGL/938' MSL.
OL on hangar 282' from DER, 317' right of centerline, 37' AGL/937' MSL.

RWY 28R: Hangar 259' from DER, 355' right of centerline, 18' AGL/931' MSL.

RWY 36: Wind vane 923' from DER, 404' left of centerline, 61' AGL/960' MSL.
Vent on building 943' from DER, 295' left of centerline, 44' AGL/943' MSL.
Pole 714' from DER, 351' left of centerline, 33' AGL/932' MSL.
Multiple trees beginning 504' from DER, 324' right of centerline, up to 67' AGL/966' MSL.

NOTE: RADAR required.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTON

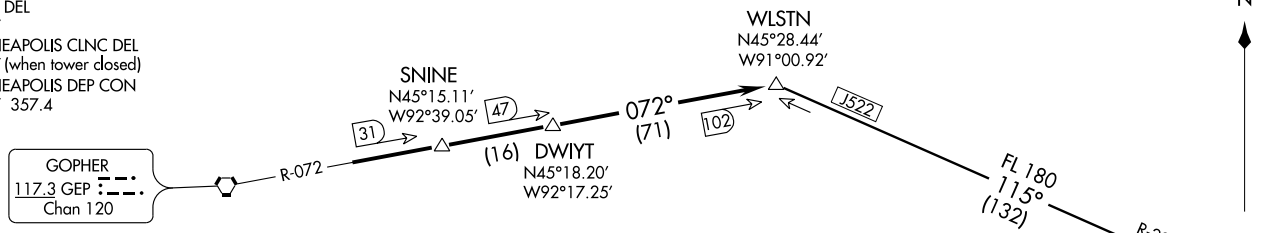
TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to FGT VORTAC then via FGT R-132 and UKN R-314 to UKN VORTAC, thence

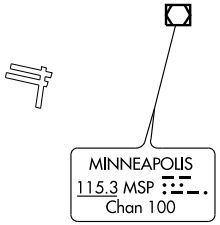
. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

DUBUQUE TRANSITION (UKN3.DBQ): From over UKN VORTAC via UKN R-140 and DBQ R-322 to DBQ VORTAC.

NC-1, 03 JUN 2010 to 01 JUL 2010

ATIS 124.9
CLNC DEL
121.7
MINNEAPOLIS CLNC DEL
121.7 (when tower closed)
MINNEAPOLIS DEP CON
134.7 357.4





GREEN BAY
115.5 GRB
Chan 102
N44°33.31'-W88°11.69'
L-31, H-2

TAKE-OFF OBSTACLE NOTES

RWY 10L: Multiple antennas on hangars beginning 270' from DER, 330' left of centerline, up to 26' AGL/932' MSL.
Tree 682' from DER, 668' right of centerline, 26' AGL/932' MSL.
RWY 10R: Multiple OL on poles beginning 287' from DER, 345' right of centerline, up to 36' AGL/939' MSL.
Hangar 150' from DER, 422' right of centerline, 21' AGL/920' MSL.
Antenna on building 536' from DER, 263' right of centerline, 14' AGL/913' MSL.
RWY 18: Multiple trees beginning 338' from DER, 166' left of centerline, up to 62' AGL/961' MSL.
OL on fence 176' from DER, 127' left of centerline, 10' AGL/910' MSL.
Vehicle and road 198' from DER, 196' left of centerline, 15' AGL/918' MSL.
Floodlight 148' from DER, 374' right of centerline, 38' AGL/938' MSL.
OL on hangar 282' from DER, 317' right of centerline, 37' AGL/937' MSL.
RWY 28R: Hangar 259' from DER, 355' right of centerline, 18' AGL/931' MSL.
RWY 36: Wind vane 923' from DER, 404' left of centerline, 61' AGL/960' MSL.
Vent on building 943' from DER, 295' left of centerline, 44' AGL/943' MSL.
Pole 714' from DER, 351' left of centerline, 33' AGL/932' MSL.
Multiple trees beginning 504' from DER, 324' right of centerline, up to 67' AGL/966' MSL.

TAKE-OFF MINIMUMS
Rwy 10L, 10R, 18, 28L, 28R, 36: Standard.

NOTE: RADAR and DME required.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to GEP R-072 to WLSTN/GEP 102 DME, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/ flight level 10 (ten) minutes after departure.

GREEN BAY TRANSITION (WLSTN3.GRB): From over WLSTN via GRB R-295 to GRB VORTAC.

ATIS 124.9
CLNC DEL
121.7
MINNEAPOLIS CLNC DEL
121.7 (when tower closed)
MINNEAPOLIS DEP CON
134.7 357.4

TAKE-OFF OBSTACLE NOTES:

RWY 10L: Multiple antenna's on hangar's beginning 270' from DER, 330' left of centerline, up to 26' AGL/932' MSL. Tree 682' from DER, 668' right of centerline, 26' AGL/932' MSL.

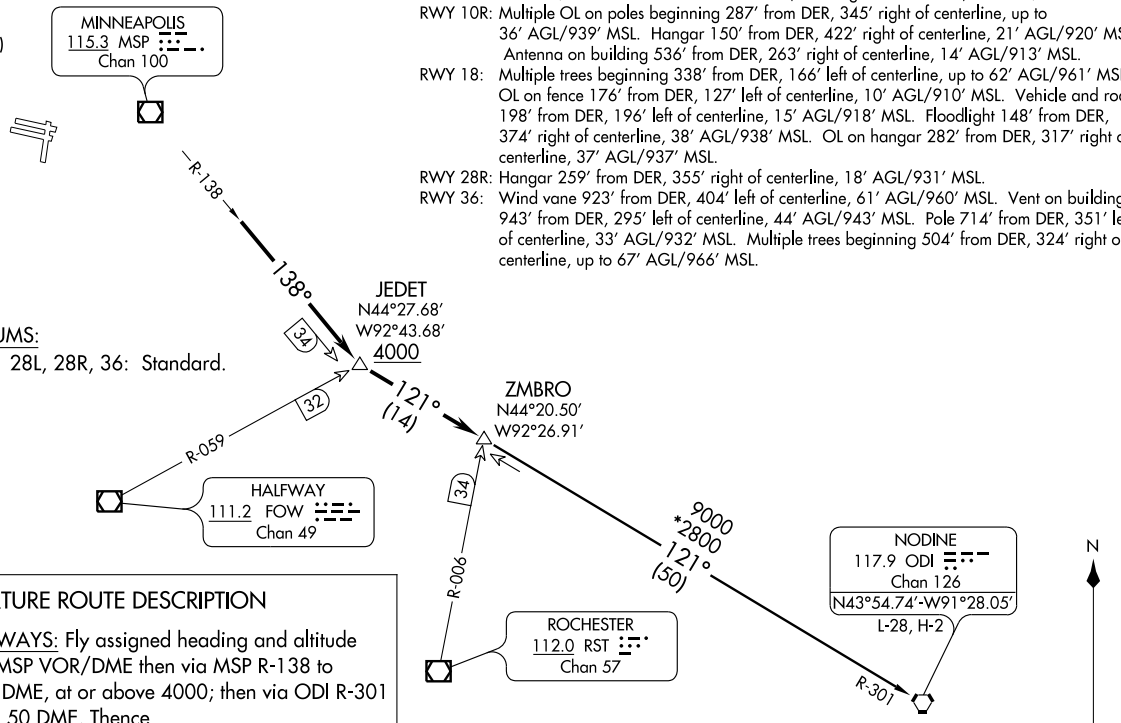
RWY 10R: Multiple OL on poles beginning 287' from DER, 345' right of centerline, up to 36' AGL/939' MSL. Hangar 150' from DER, 422' right of centerline, 21' AGL/920' MSL. Antenna on building 536' from DER, 263' right of centerline, 14' AGL/913' MSL.

RWY 18: Multiple trees beginning 338' from DER, 166' left of centerline, up to 62' AGL/961' MSL. OL on fence 176' from DER, 127' left of centerline, 10' AGL/910' MSL. Vehicle and road 198' from DER, 196' left of centerline, 15' AGL/918' MSL. Floodlight 148' from DER, 374' right of centerline, 38' AGL/938' MSL. OL on hangar 282' from DER, 317' right of centerline, 37' AGL/937' MSL.

RWY 28R: Hangar 259' from DER, 355' right of centerline, 18' AGL/931' MSL.

RWY 36: Wind vane 923' from DER, 404' left of centerline, 61' AGL/960' MSL. Vent on building 943' from DER, 295' left of centerline, 44' AGL/943' MSL. Pole 714' from DER, 351' left of centerline, 33' AGL/932' MSL. Multiple trees beginning 504' from DER, 324' right of centerline, up to 67' AGL/966' MSL.

TAKE-OFF MINIMUMS:
Rwy 10L, 10R, 18, 28L, 28R, 36: Standard.



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-138 to JEDET INT/ MSP 34 DME, at or above 4000; then via ODI R-301 to ZMBRO INT/ ODI 50 DME, Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

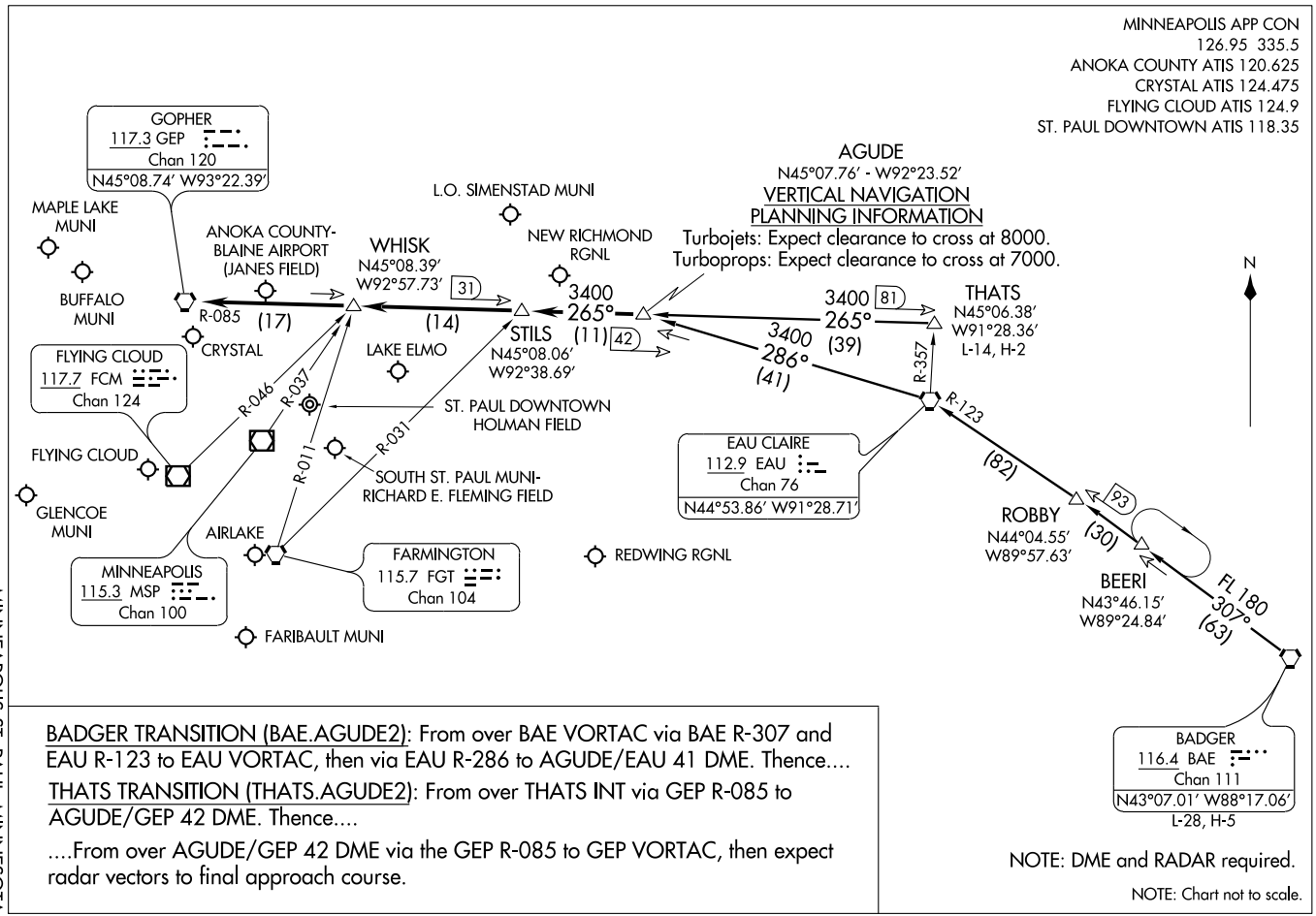
NODINE TRANSITION (ZMBRO3.ODI): From over ZMBRO INT via ODI R-301 to ODI VORTAC.

NOTE: RADAR Required

NOTE: Chart not to scale.

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

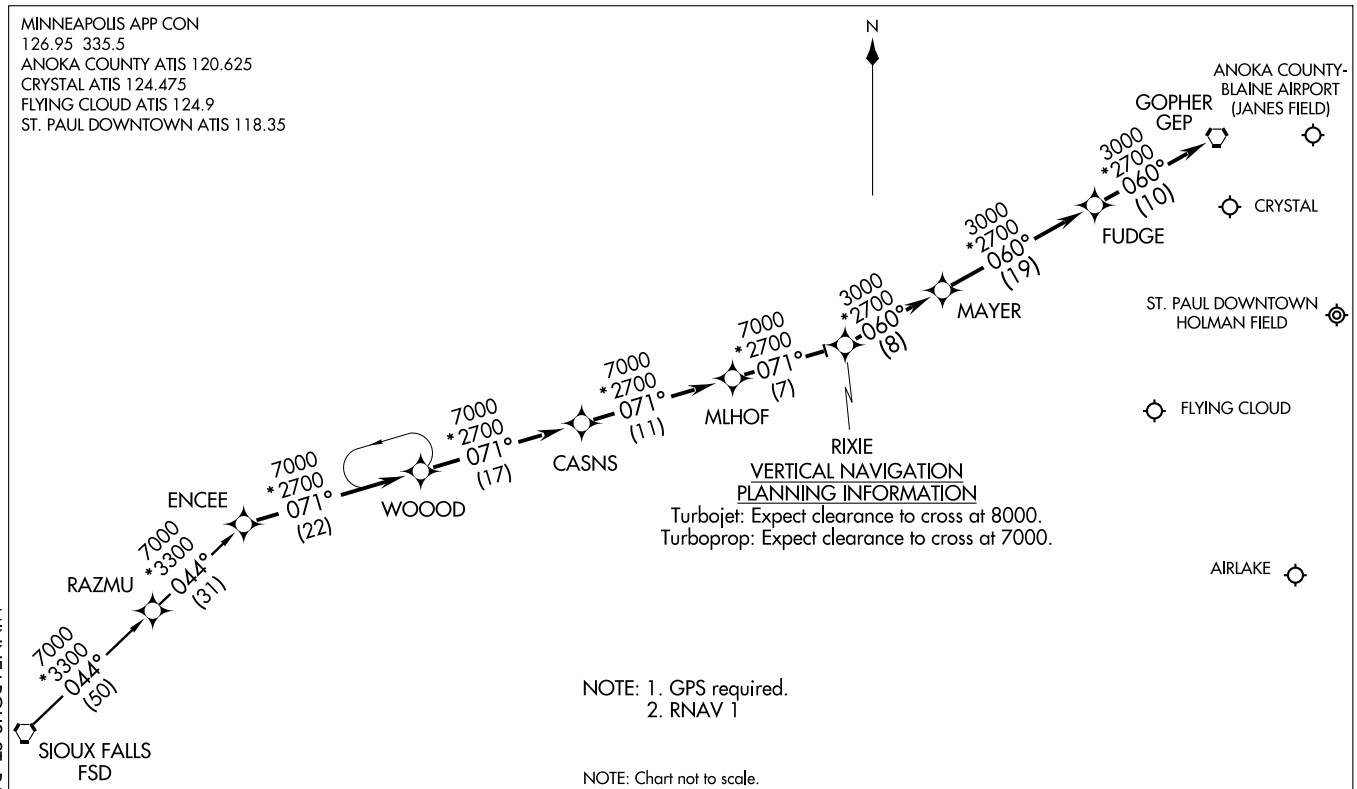
....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

ENCEE ONE ARRIVAL (RNAV)

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



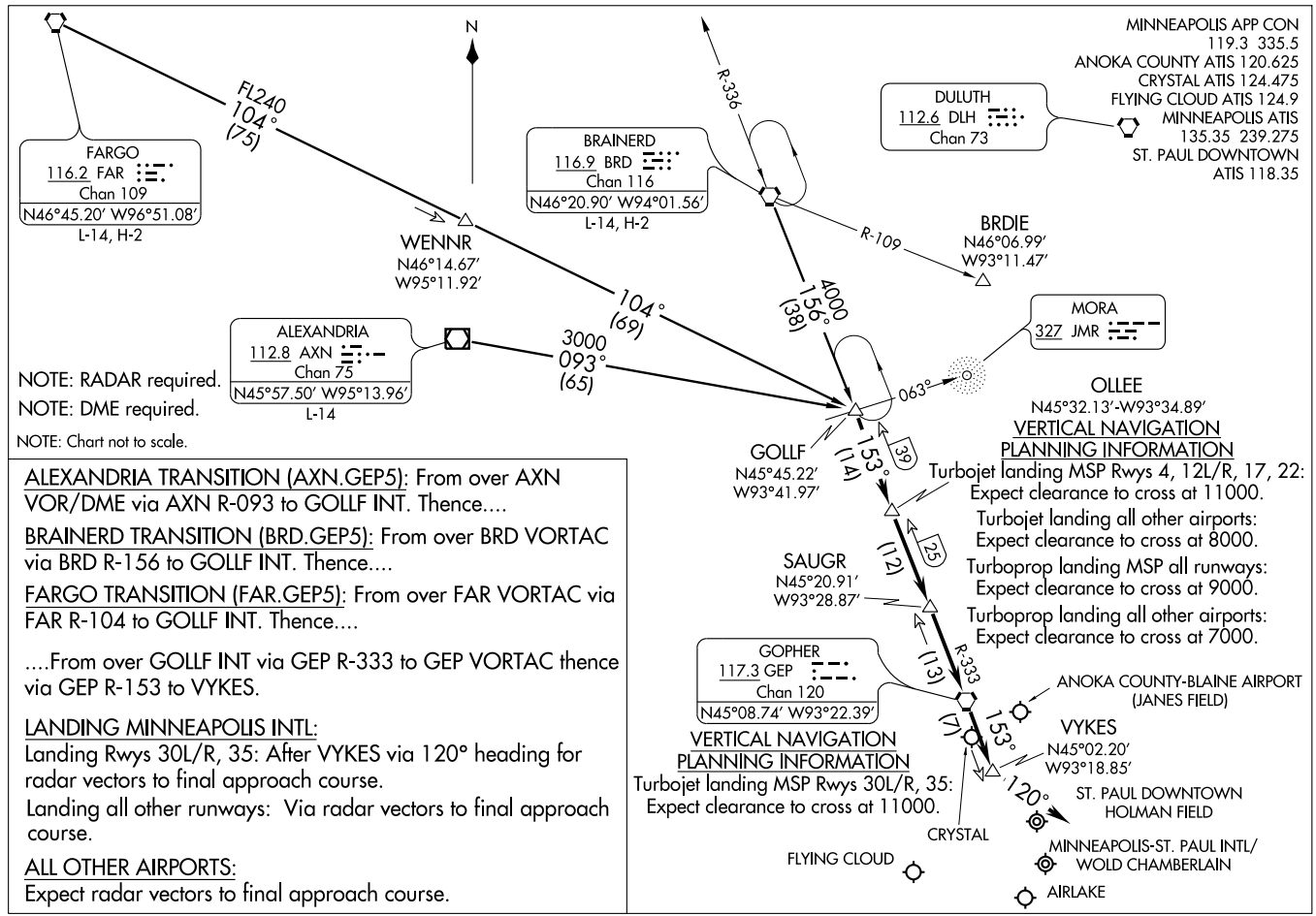
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 8000.
Turboprop: Expect clearance to cross at 7000.

NOTE: 1. GPS required.
2. RNAV 1

NOTE: Chart not to scale.

SIOUX FALLS TRANSITION (FSD.ENCEE1)

From over ENCEE WP via 071° track to RIXIE WP, thence via 060° track to GEP VORTAC, thence expect radar vectors to final approach course.


GOPHER FIVE ARRIVAL (GEP.GEP5) 08157
ST-264 (FAA)
MINNEAPOLIS, MINNESOTA
MINNEAPOLIS APP CON
119.3 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
MINNEAPOLIS ATIS
135.35 239.275
ST. PAUL DOWNTOWN
ATIS 118.35
N
FARGO
116.2 FAR
Chan 109
N46°45.20' W96°51.08'
L-14, H-2
FL240
104°
(75)
WENNR
N46°14.67'
W95°11.92'
BRAINERD
116.9 BRD
Chan 116
N46°20.90' W94°01.56'
L-14, H-2
R-336
DULUTH
112.6 DLH
Chan 73
R-109
BRDIE
N46°06.99'
W93°11.47'
4000
156°
(38)
MORA
327 JMR
ALEXANDRIA
112.8 AXN
Chan 75
N45°57.50' W95°13.96'
L-14
3000
093°
(65)
104°
(69)
063°
OLLEE
N45°32.13'-W93°34.89'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 4, 12L/R, 17, 22:
Expect clearance to cross at 11000.
Turbojet landing all other airports:
Expect clearance to cross at 8000.
Turboprop landing MSP all runways:
Expect clearance to cross at 9000.
Turboprop landing all other airports:
Expect clearance to cross at 7000.
GOLLF
N45°45.22'
W93°41.97'
153°
(14)
39
SAUGR
N45°20.91'
W93°28.87'
(12)
25
R-333
(13)
GOPHER
117.3 GEP
Chan 120
N45°08.74' W93°22.39'
(7)
153°
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 30L/R, 35:
Expect clearance to cross at 11000.
ANOKA COUNTY-BLAINE AIRPORT
(JANES FIELD)
VYKES
N45°02.20'
W93°18.85'
120°
ST. PAUL DOWNTOWN
HOLMAN FIELD
CRYSTAL
MINNEAPOLIS-ST. PAUL INTL/
WOLD CHAMBERLAIN
FLYING CLOUD
AIRLAKE
NOTE: RADAR required.
NOTE: DME required.
NOTE: Chart not to scale.
ALEXANDRIA TRANSITION (AXN.GEP5): From over AXN VOR/DME via AXN R-093 to GOLLF INT. Thence....
BRAINERD TRANSITION (BRD.GEP5): From over BRD VORTAC via BRD R-156 to GOLLF INT. Thence....
FARGO TRANSITION (FAR.GEP5): From over FAR VORTAC via FAR R-104 to GOLLF INT. Thence....
....From over GOLLF INT via GEP R-333 to GEP VORTAC thence via GEP R-153 to VYKES.
LANDING MINNEAPOLIS INTL:
Landing Rwys 30L/R, 35: After VYKES via 120° heading for radar vectors to final approach course.
Landing all other runways: Via radar vectors to final approach course.
ALL OTHER AIRPORTS:
Expect radar vectors to final approach course.

LOC I-LVN	APP CRS	Rwy Idg	3706
108.9	294°	TDZE	958
		Apt Elev	960

ILS or LOC RWY 30

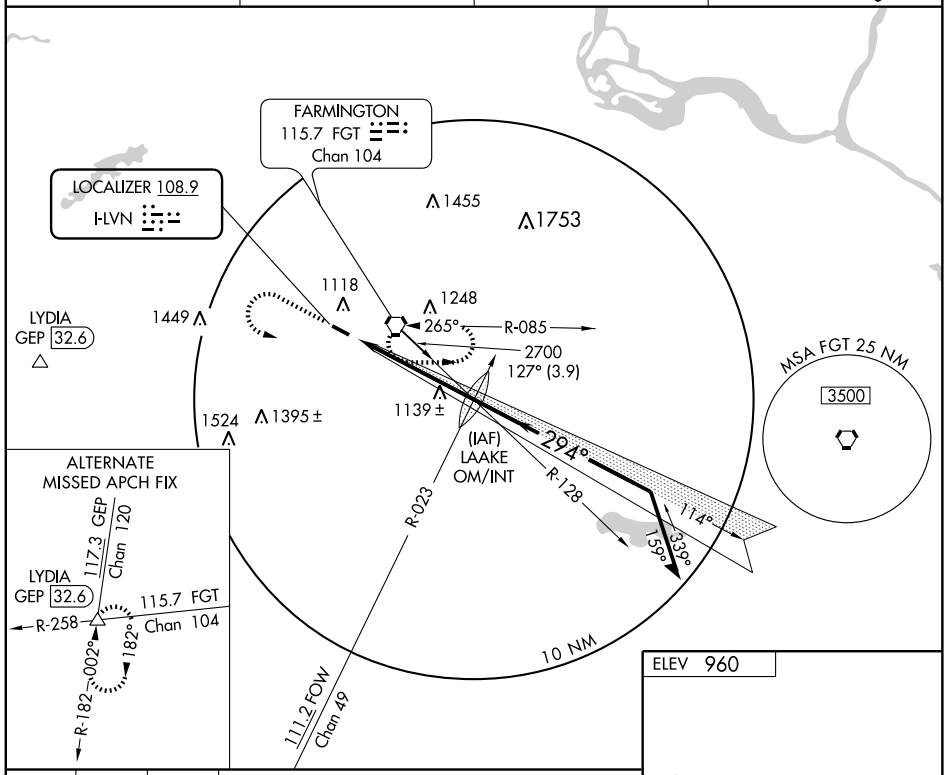
MINNEAPOLIS/AIRLAKE (LVN)

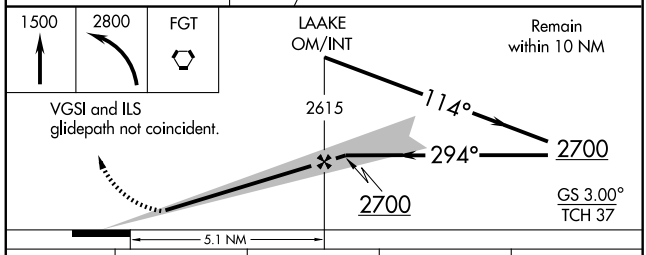
NA Visibility reduction by helicopters NA. For inoperative MALSR, increase S-LOC Cats A and B visibility to 1.

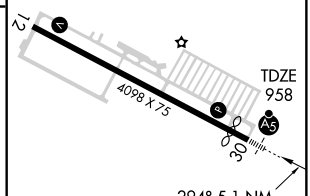
MALSR

MISSED APPROACH: Climb to 1500 then climbing left turn to 2800 direct FGT VORTAC and hold.

AWOS-3	MINNEAPOLIS APP CON	CLNC DEL	UNICOM
118.0	134.7 284.7	118.95	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 30	1208-¾ 250 (300-¾)			
S-LOC 30	1400-¾ 442 (500-¾)			1400-1 442 (500-1)
CIRCLING	1500-1 540 (600-1)		1500-1½ 540 (600-1½)	1520-2 560 (600-2)

REIL Rwy 12 L
HIRL Rwy 12-30 L

FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42

NC-1. 03 JUN 2010 to 01 JUL 2010

(TWOLF.TWOLF2) 10154

TWOLF TWO ARRIVAL

ST-264 (FAA)

MINNEAPOLIS, MINNESOTA

MINNEAPOLIS APP CON
126.95 335.5
118.72 (MSP RWY 35)
MINNEAPOLIS ATIS
135.35 239.275
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS
118.35

L.O. SIMENSTAD MUNI
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD)
NEW RICHMOND RGNL
CRYSTAL
ST. PAUL DOWNTOWN HOLMAN FIELD
FLYING CLOUD
MINNEAPOLIS-ST. PAUL INTL/ WOLD CHAMBERLAIN
AIRLAKE

GOPHER
117.3 GEP
Chan 120

FLYING CLOUD
117.7 FCM
Chan 124
N44°49.54′-W93°27.41′

FARMINGTON
115.7 FGT
Chan 104
N44°37.86′-W93°10.92′

MANKATO
110.8 MKT
Chan 45

FORT DODGE
113.5 FOD
Chan 82
N42°36.67′-W94°17.69′
L-12, H-5

300°
R-103
330°
(11)
R-180
R-178
R-201
(8)
5000
(36)
360°
(17)
(9)
(55)
021°
5000
(10)
R-081
6000
(62)
(7)
8000
(22)
(84)
12000
358°
(28)
(112)
12000
032°
(30)
(52)
R-178
GEP
12000
*2900
032°
(22)

SLIKK
N44°47.90′
W93°17.21′

TRGET
N44°13.88′-W93°27.73′

VERTICAL NAVIGATION PLANNING INFORMATION

MSP: Expect clearance to cross at 11000.
All other airports:
Turbojets: Expect clearance to cross at 8000.
Turboprops: Expect clearance to cross at 7000.

GDNEE
N44°30.68′
W93°15.98′

PIKKL
N44°22.82′
W93°21.49′

LYNKS
N44°06.89′
W93°28.39′

KGEEE
N43°44.94′
W93°30.47′

TWOLF
N43°17.00′
W93°33.09′

TICKT
N42°53.71′
W93°59.01′

NOTE: DME and RADAR Required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NC-1, 03 JUN 2010 to 01 JUL 2010

TWOLF TWO ARRIVAL

ARRIVAL DESCRIPTION

FORT DODGE TRANSITION (FOD.TWOLF2): From over FOD VORTAC via FOD R-032 to TWOLF/FOD 52 DME, Thence

....From over TWOLF/GEP 112 DME via GEP R-178 to KGEEE/GEP 84 DME, then as depicted to TRGET INT/GEP 55 DME. Thence....

LANDING MSP RWYS 12L/R: From over TRGET INT via FGT R-201 to FGT VORTAC, then via FGT R-330 to SLIKK INT/FGT 11 DME, then via heading 300° for radar vectors to final approach course.

LANDING MSP RWYS 30L/R, 4, 22, 17, 35: From over TRGET INT via FGT R-201 to FGT VORTAC, then via radar vectors to final approach course.

LANDING ALL OTHER AIRPORTS: From over TRGET INT via FCM R-180 to FCM VOR/DME, then expect radar vectors to final approach course.

NC-1. 03 JUN 2010 to 01 JUL 2010

VORTAC FGT	APP CRS	Rwy Idg 4098
115.7	085°	TDZE 960
Chan 104		Apt Elev 960

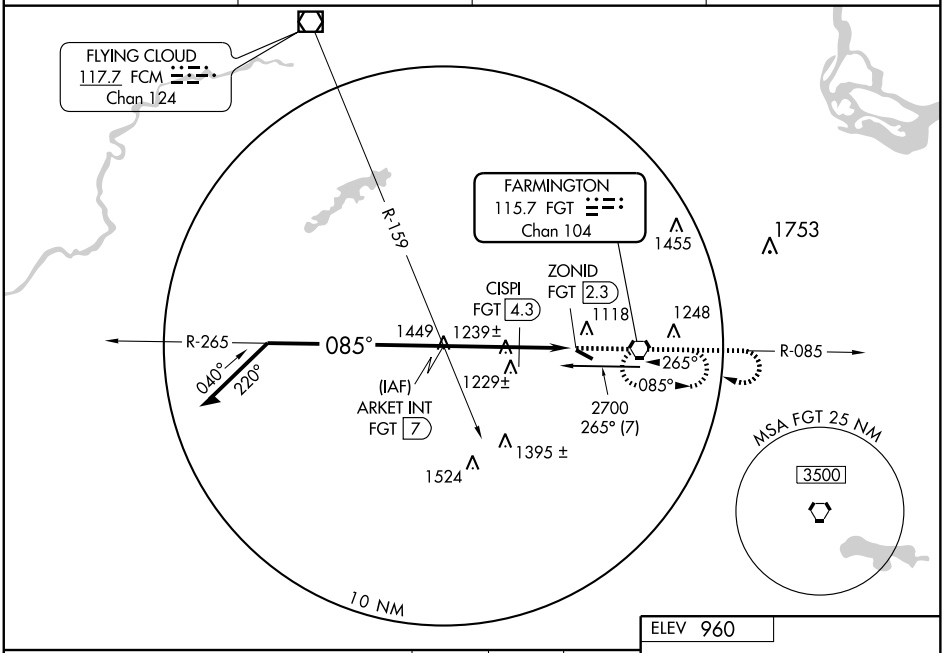
VOR RWY 12

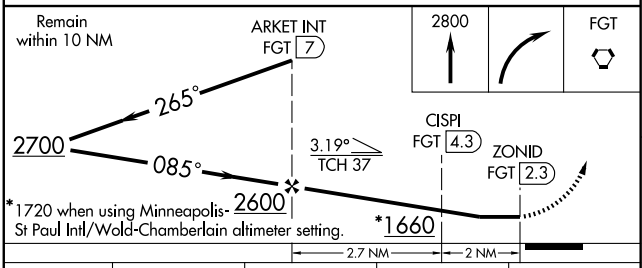
MINNEAPOLIS/AIRLAKE (LVN)

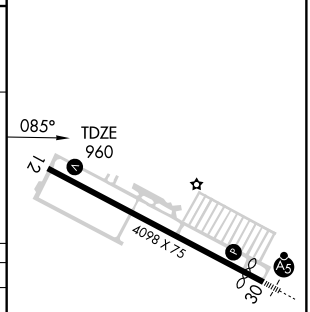
▼ When VGSI inoperative, straight-in/Circling Rwy 12 procedure NA at night.
▲ Visibility reduction by helicopters NA. When local altimeter setting not received, use Minneapolis-St Paul Intl/ Wold-Chamberlain altimeter setting and increase all MDA 60 feet, increase S-12 and Circling Cat B, C, and D visibility ¼ mile.

MISSED APPROACH: Climb to 2800 then right turn direct FGT VORTAC and hold.

AWOS-3	MINNEAPOLIS APP CON	CLNC DEL	UNICOM
118.0	134.7 284.7	118.95	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-12	1660-1	700 (700-1)	1660-2 700 (700-2)	1660-2¼ 700 (700-2¼)
CIRCLING	1660-1	700 (700-1)	1660-2 700 (700-2)	1660-2¼ 700 (700-2¼)
CISPI FIX MINIMUMS				
S-12	1480-1	520 (600-1)	1480-1½ 520 (600-1½)	1480-1¾ 520 (600-1¾)
CIRCLING	1500-1	540 (600-1)	1500-1½ 540 (600-1½)	1520-2 560 (600-2)

REIL Rwy 12 L
HIRL Rwy 12-30 L

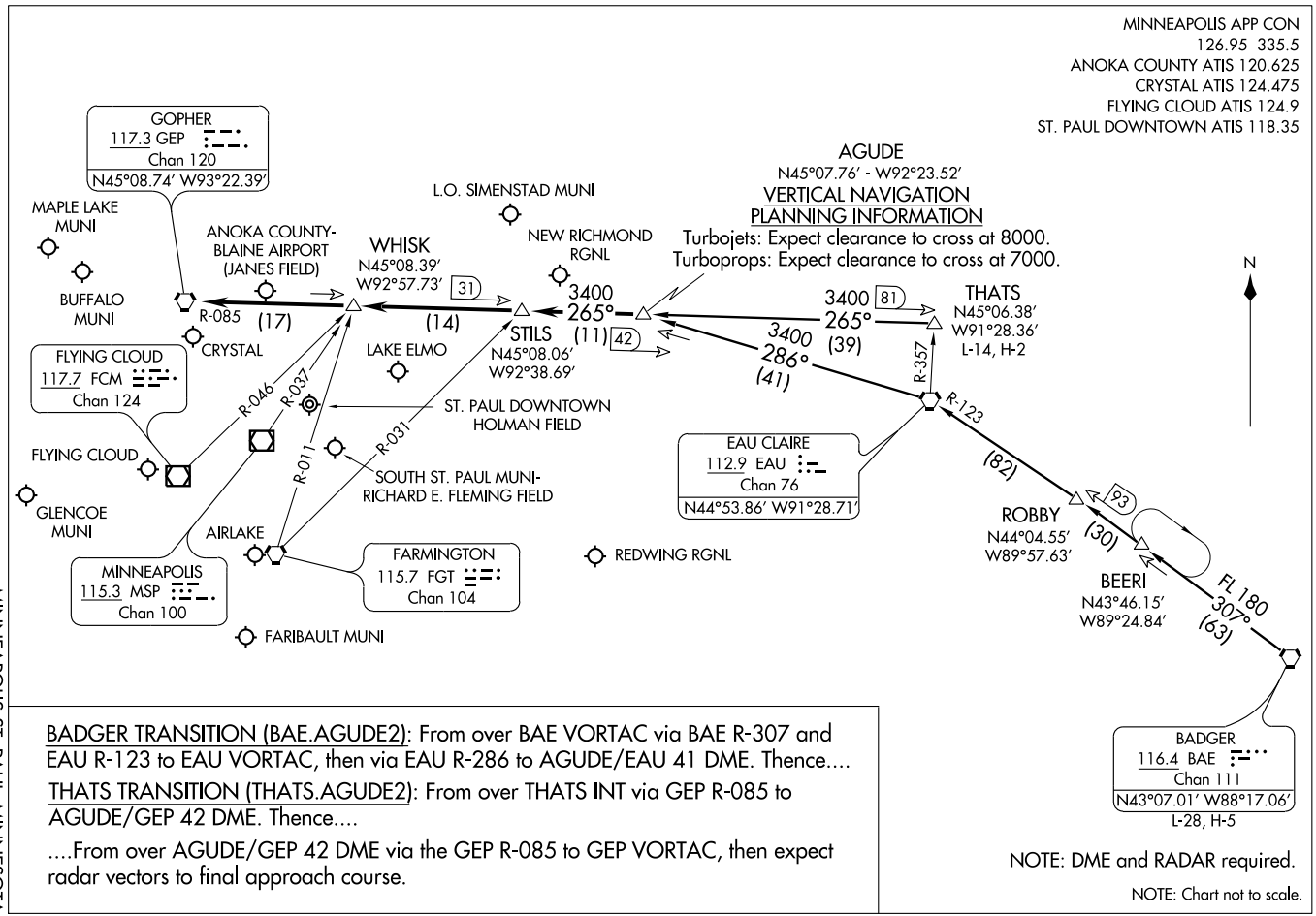
FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

NC-1. 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

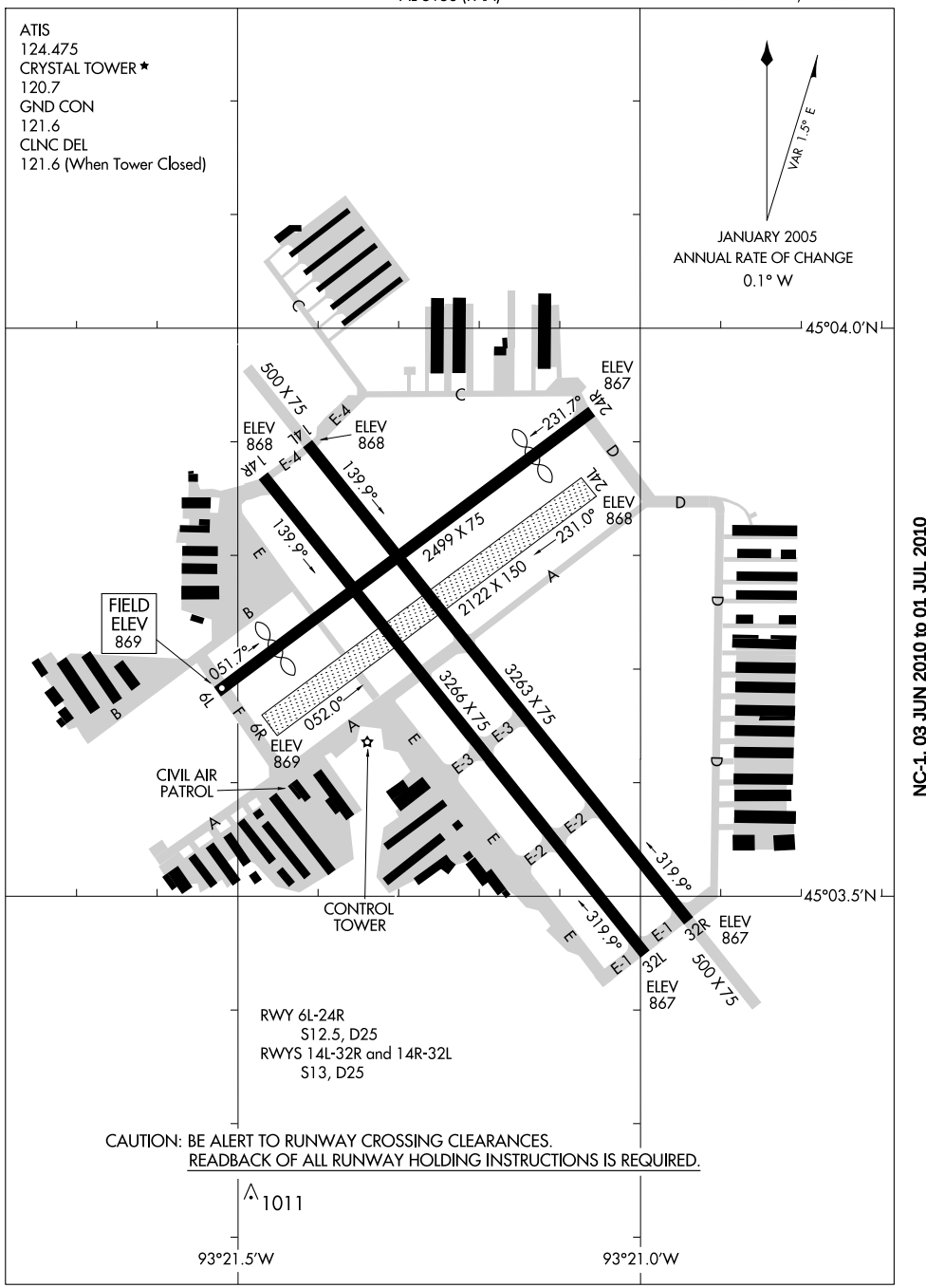
09127

AIRPORT DIAGRAM

AL-5158 (FAA)

MINNEAPOLIS/ CRYSTAL (MIC)
MINNEAPOLIS, MINNESOTA

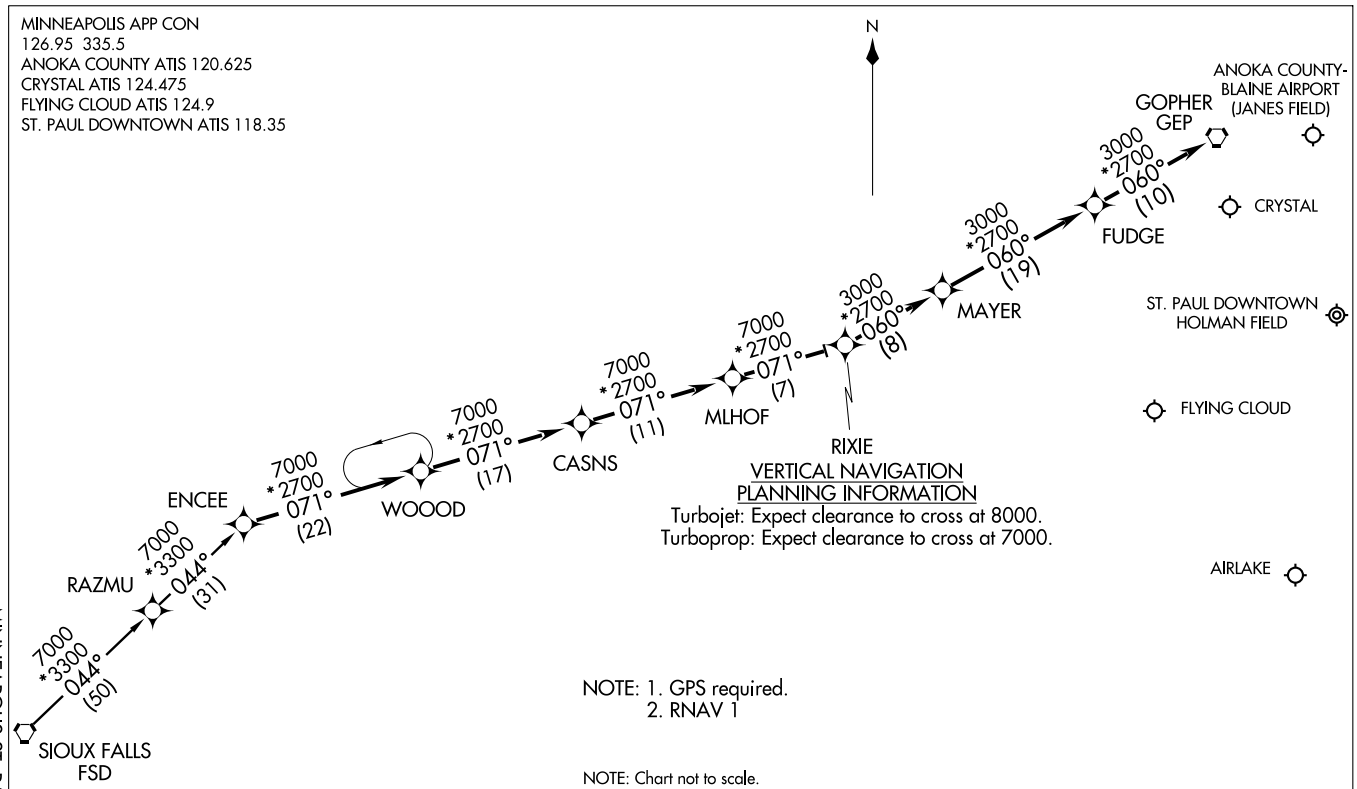
ATIS
124.475
CRYSTAL TOWER ★
120.7
GND CON
121.6
CLNC DEL
121.6 (When Tower Closed)



NC-1, 03 JUN 2010 to 01 JUL 2010

ENCEE ONE ARRIVAL (RNAV)

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



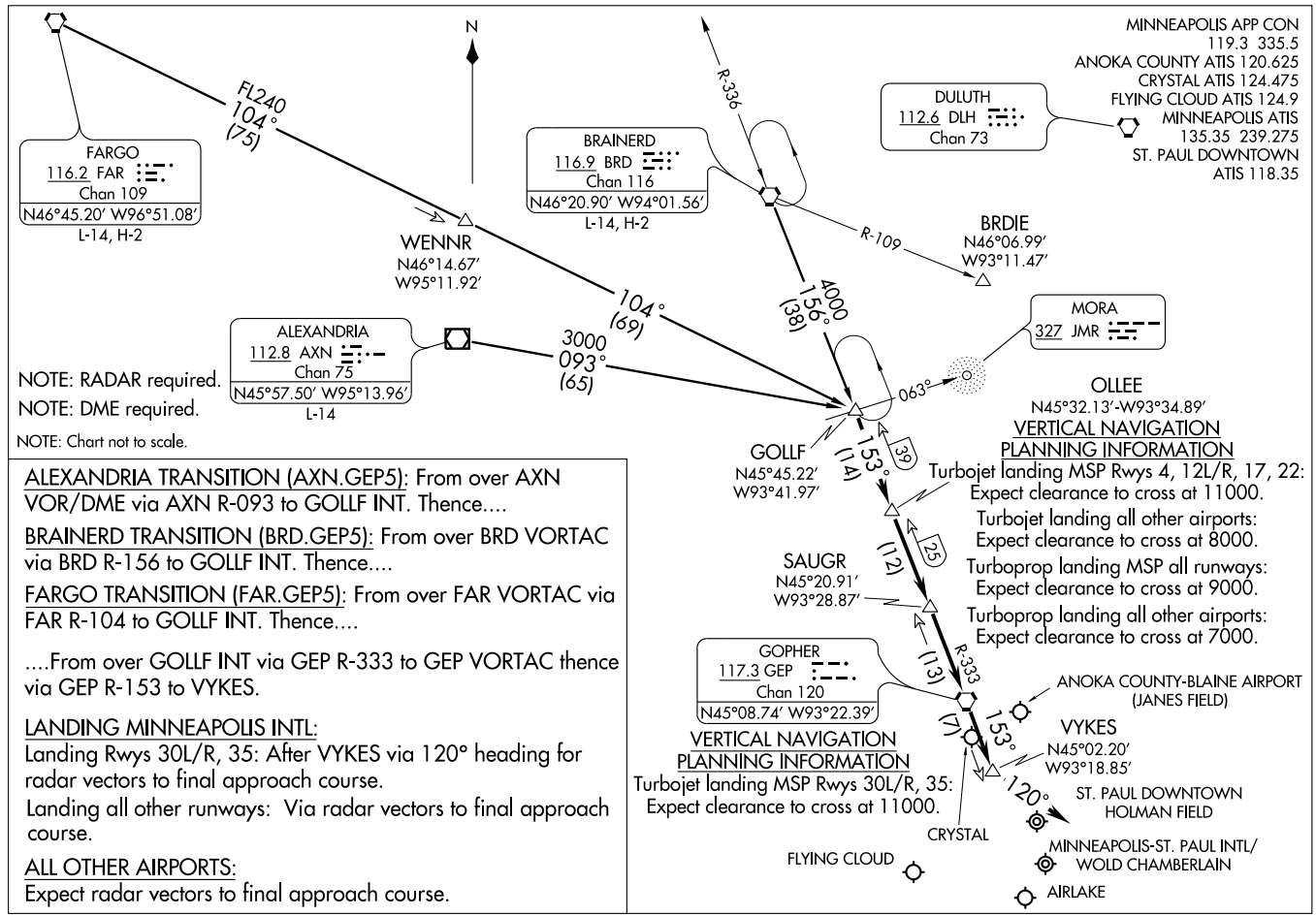
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 8000.
Turboprop: Expect clearance to cross at 7000.

NOTE: 1. GPS required.
2. RNAV 1

NOTE: Chart not to scale.

SIOUX FALLS TRANSITION (FSD.ENCEE1)

From over ENCEE WP via 071° track to RIXIE WP, thence via 060° track to GEP VORTAC, thence expect radar vectors to final approach course.


GOPHER FIVE ARRIVAL (GEP.GEP5) 08157
ST-264 (FAA)
MINNEAPOLIS, MINNESOTA
MINNEAPOLIS APP CON
119.3 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
MINNEAPOLIS ATIS
135.35 239.275
ST. PAUL DOWNTOWN
ATIS 118.35
N
FARGO
116.2 FAR
Chan 109
N46°45.20' W96°51.08'
L-14, H-2
FL240
104°
(75)
WENNR
N46°14.67'
W95°11.92'
BRAINERD
116.9 BRD
Chan 116
N46°20.90' W94°01.56'
L-14, H-2
R-336
DULUTH
112.6 DLH
Chan 73
R-109
BRDIE
N46°06.99'
W93°11.47'
4000
156°
(38)
MORA
327 JMR
ALEXANDRIA
112.8 AXN
Chan 75
N45°57.50' W95°13.96'
L-14
3000
093°
(65)
104°
(69)
063°
OLLEE
N45°32.13'-W93°34.89'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 4, 12L/R, 17, 22:
Expect clearance to cross at 11000.
Turbojet landing all other airports:
Expect clearance to cross at 8000.
Turboprop landing MSP all runways:
Expect clearance to cross at 9000.
Turboprop landing all other airports:
Expect clearance to cross at 7000.
GOLLF
N45°45.22'
W93°41.97'
153°
(14)
39
SAUGR
N45°20.91'
W93°28.87'
(12)
25
R-333
(13)
GOPHER
117.3 GEP
Chan 120
N45°08.74' W93°22.39'
(7)
153°
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 30L/R, 35:
Expect clearance to cross at 11000.
ANOKA COUNTY-BLAINE AIRPORT
(JANES FIELD)
VYKES
N45°02.20'
W93°18.85'
120°
ST. PAUL DOWNTOWN
HOLMAN FIELD
CRYSTAL
MINNEAPOLIS-ST. PAUL INTL/
WOLD CHAMBERLAIN
FLYING CLOUD
AIRLAKE
NOTE: RADAR required.
NOTE: DME required.
NOTE: Chart not to scale.
ALEXANDRIA TRANSITION (AXN.GEP5): From over AXN VOR/DME via AXN R-093 to GOLLF INT. Thence....
BRAINERD TRANSITION (BRD.GEP5): From over BRD VORTAC via BRD R-156 to GOLLF INT. Thence....
FARGO TRANSITION (FAR.GEP5): From over FAR VORTAC via FAR R-104 to GOLLF INT. Thence....
....From over GOLLF INT via GEP R-333 to GEP VORTAC thence via GEP R-153 to VYKES.
LANDING MINNEAPOLIS INTL:
Landing Rwys 30L/R, 35: After VYKES via 120° heading for radar vectors to final approach course.
Landing all other runways: Via radar vectors to final approach course.
ALL OTHER AIRPORTS:
Expect radar vectors to final approach course.

RNAV (GPS) RWY 14L

MINNEAPOLIS/ CRYSTAL (MIC)

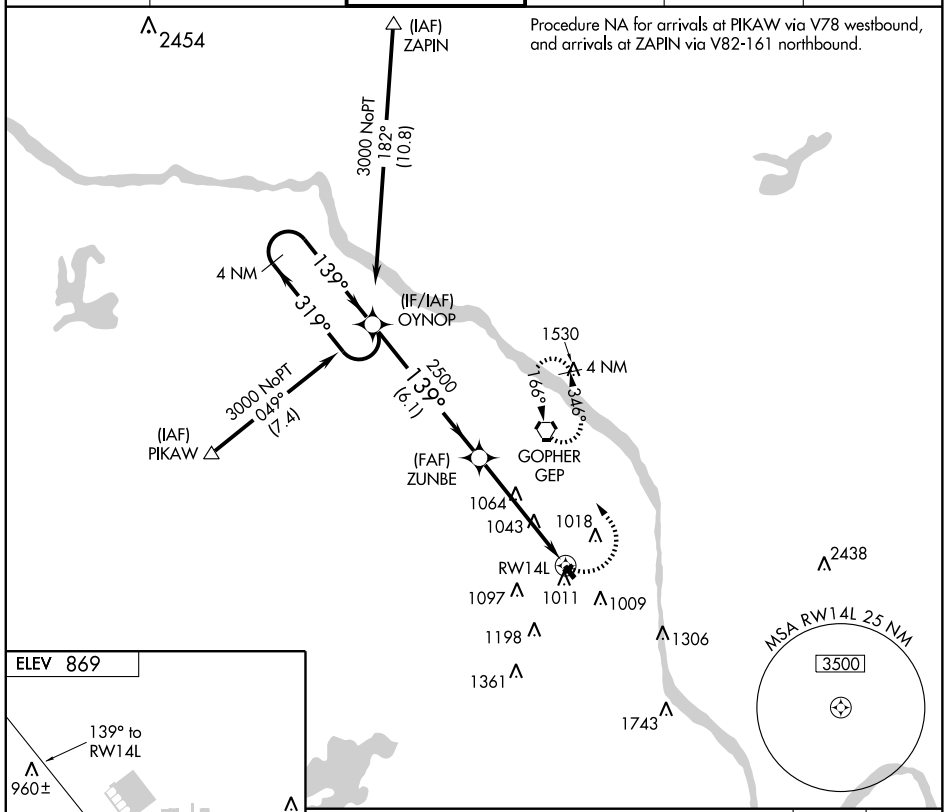
APP CRS	Rwy Idg	3263
139°	TDZE	868
	Apt Elev	869

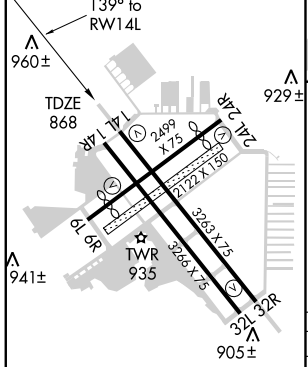
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Anoka County-Blaine Airport (Janes Field) altimeter setting and increase all MDA 80 feet, increase circling Cat D visibility ¼ mile.

MISSED APPROACH: Climbing left turn to 2700 direct GEP VORTAC and hold.

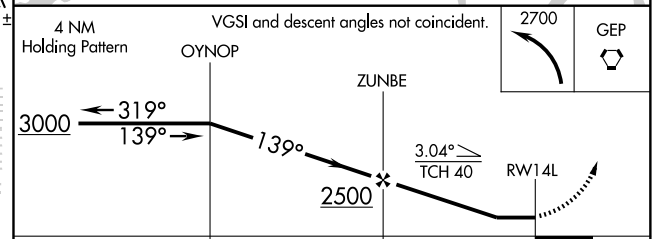
ATIS	MINNEAPOLIS APP CON	CRYSTAL TOWER	GND CON	CLNC DEL	UNICOM
124.475	126.5	120.7 (CTAF) L	121.6	121.6	122.95

Procedure NA for arrivals at PIKAW via V78 westbound, and arrivals at ZAPIN via V82-161 northbound.





REIL Rwy 32L
REIL Rwys 14L and 32R L
MIRL Rwys 6L-24R and 14L-32R L



CATEGORY	A	B	C	D
LNAV MDA	1380-1	512 (600-1)	1380-1½ 512 (600-1½)	1380-1¾ 512 (600-1¾)
CIRCLING	1380-1	511 (600-1)	1380-1½ 511 (600-1½)	1460-2 591 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

(TWOLF.TWOLF2) 10154

TWOLF TWO ARRIVAL

ST-264 (FAA)

MINNEAPOLIS, MINNESOTA

MINNEAPOLIS APP CON
126.95 335.5
118.72 (MSP RWY 35)
MINNEAPOLIS ATIS
135.35 239.275
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS
118.35

L.O. SIMENSTAD MUNI
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD)
NEW RICHMOND RGNL
CRYSTAL
ST. PAUL DOWNTOWN HOLMAN FIELD
FLYING CLOUD
MINNEAPOLIS-ST. PAUL INTL/ WOLD CHAMBERLAIN
AIRLAKE

GOPHER
117.3 GEP
Chan 120

FLYING CLOUD
117.7 FCM
Chan 124
N44°49.54′-W93°27.41′

FARMINGTON
115.7 FGT
Chan 104
N44°37.86′-W93°10.92′

MANKATO
110.8 MKT
Chan 45

FORT DODGE
113.5 FOD
Chan 82
N42°36.67′-W94°17.69′
L-12, H-5

300°
R-103
330°
(11)
R-180
R-178
R-201
(8)
5000
(36)
360°
(17)
(9)
(55)
021°
5000
(10)
R-081
6000
(62)
(7)
8000
(22)
(84)
12000
358°
(28)
(112)
12000
032°
(30)
(52)
R-178
GEP
12000
*2900
032°
(22)

SLIKK
N44°47.90′
W93°17.21′

TRGET
N44°13.88′-W93°27.73′

VERTICAL NAVIGATION PLANNING INFORMATION

MSP: Expect clearance to cross at 11000.
All other airports:
Turbojets: Expect clearance to cross at 8000.
Turboprops: Expect clearance to cross at 7000.

GDNEE
N44°30.68′
W93°15.98′

PIKKL
N44°22.82′
W93°21.49′

LYNKS
N44°06.89′
W93°28.39′

KGEEE
N43°44.94′
W93°30.47′

TWOLF
N43°17.00′
W93°33.09′

TICKT
N42°53.71′
W93°59.01′

NOTE: DME and RADAR Required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NC-1, 03 JUN 2010 to 01 JUL 2010

TWOLF TWO ARRIVAL

ARRIVAL DESCRIPTION

FORT DODGE TRANSITION (FOD.TWOLF2): From over FOD VORTAC via FOD R-032 to TWOLF/FOD 52 DME, Thence

....From over TWOLF/GEP 112 DME via GEP R-178 to KGEEE/GEP 84 DME, then as depicted to TRGET INT/GEP 55 DME. Thence....

LANDING MSP RWYS 12L/R: From over TRGET INT via FGT R-201 to FGT VORTAC, then via FGT R-330 to SLIKK INT/FGT 11 DME, then via heading 300° for radar vectors to final approach course.

LANDING MSP RWYS 30L/R, 4, 22, 17, 35: From over TRGET INT via FGT R-201 to FGT VORTAC, then via radar vectors to final approach course.

LANDING ALL OTHER AIRPORTS: From over TRGET INT via FCM R-180 to FCM VOR/DME, then expect radar vectors to final approach course.

NC-1. 03 JUN 2010 to 01 JUL 2010

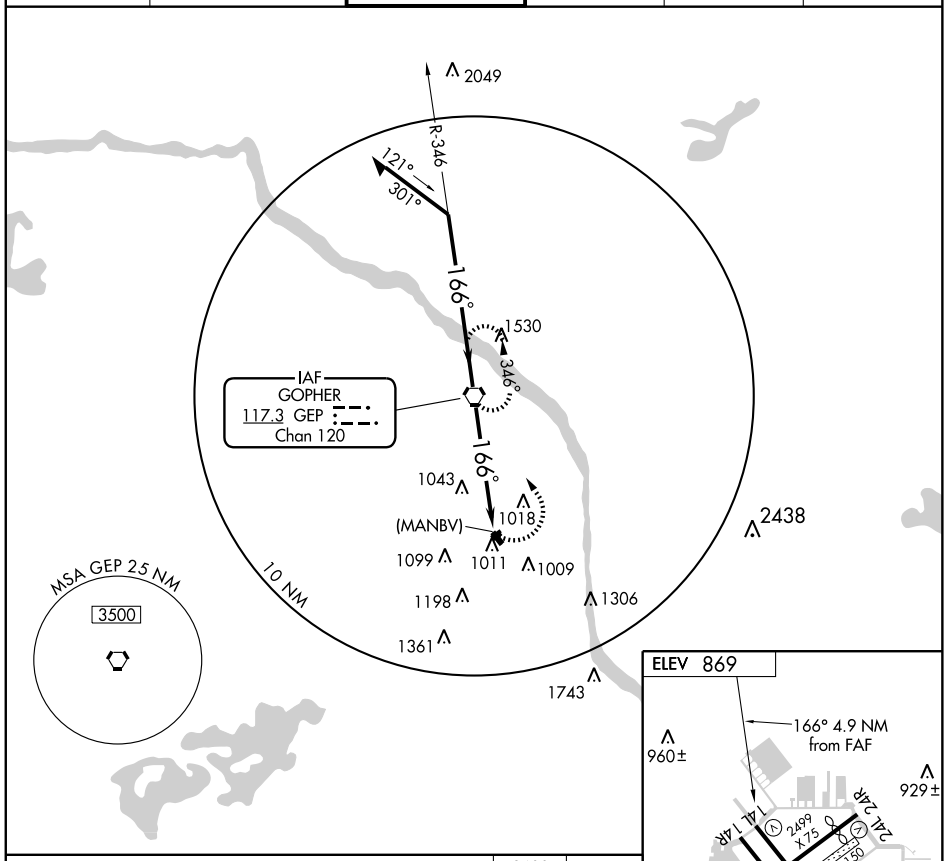
VORTAC GEP 117.3 Chan 120	APP CRS 166°	Rwy Idg N/A TDZE N/A Apt Elev 869

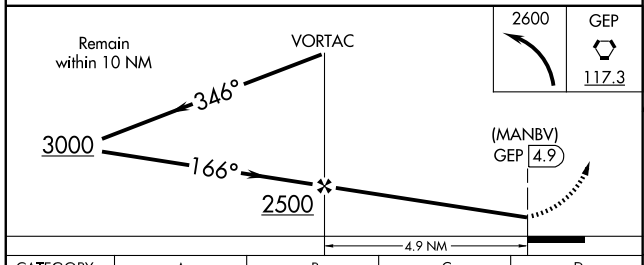
VOR or GPS-A

MINNEAPOLIS/ CRYSTAL (MIC)

MISSED APPROACH: Climbing left turn to 2600 direct GEP VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	CRYSTAL TOWER	GND CON	CLNC DEL	UNICOM
124.475	126.5	120.7 (CTAF) L	121.6	121.6	122.95





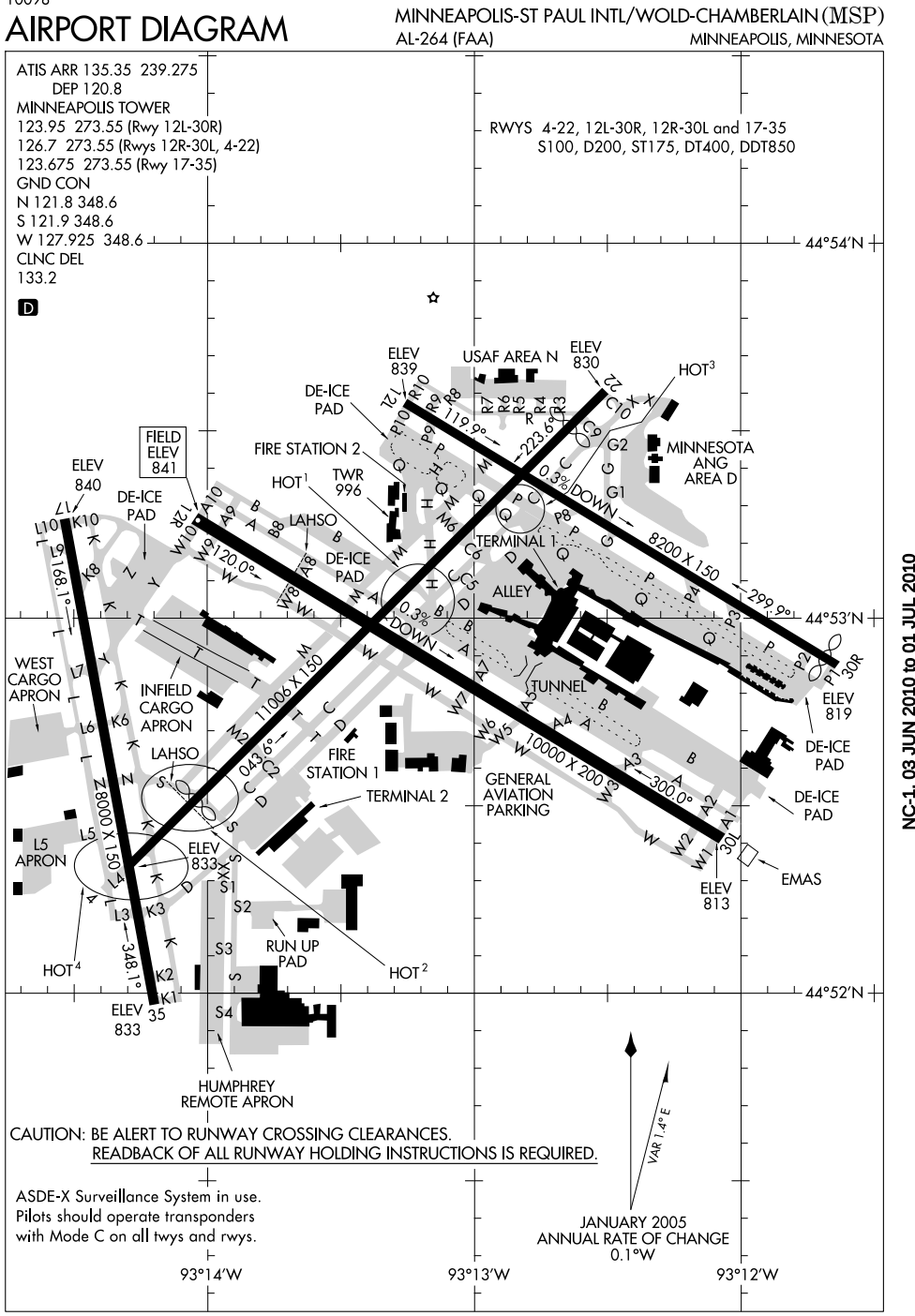
CATEGORY	A	B	C	D
CIRCLING	1360-1 491 (500-1)			1460-2 591 (600-2)

FAF to MAP 4.9 NM					
Knots	60	90	120	150	180
Min:Sec	4:54	3:16	2:27	1:58	1:38

NC-1, 03 JUN 2010 to 01 JUL 2010

AIRPORT DIAGRAM

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)
AL-264 (FAA)
MINNEAPOLIS, MINNESOTA



NC-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-MSP	APP CRS	Rwy Idg 10000
110.3	299°	TDZE 823
Chan 40		Apt Elev 841

CONVERGING ILS RWY 30L

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

T NA Simultaneous approach authorized with CONVERGING ILS Rwy 35.
RADAR required.
For inoperative ALSF, increase visibility, all Cats to 1¼.

ALSF-2

MISSED APPROACH: Climb to 1300 then climbing right turn to 4000 direct GEP VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

2438

RADAR REQUIRED

1549 1743 1539 1290 1230 1085± 1040 1158 949 1006 1111 1192 932 1033 1043 1060 1305

LOCALIZER 110.3
I-MSP
Chan 40

ALTERNATE MISSED APCH FIX
112.1 STC
R-101
Chan 58
101°
281°
PLUGS
STC 22.6
117.3 GEP
R-333
Chan 120

MSA FGT 25 NM
3500
090° 270°
2800

MISSED APCH FIX
R-297
297°
117°
GOPHER
GEP
117.3
Chan 120

IM
NARCO INT
I-MSP 6.8
AABEZ INT
I-MSP 9.8
(IF)
PIGZI INT
I-MSP 12.7
PINKE INT
I-MSP 15.6
(IAF)
HASTI INT
I-MSP 18.5

10 NM
3000 (3)
4000 (3)
5000 (2.9)
6000 (2.9)
R-017
R-032
R-045
R-056
R-065
299°
119°

FARMINGTON
115.7 FGT
Chan 104

ELEV 841 D

950± 996 906± 859± 865± 1906±
8200 X 150
11,006 X 150
10,000 X 200
0.3% DOWN
TDZE 823
299°
35

1300 | 4000 | GEP 117.3

* When authorized by ATC, intercept glidepath at AABEZ, 4000; or PIGZI, 5000; or PINKE, 6000.

VGSI and ILS glidepath not coincident

NARCO INT I-MSP 6.8 | AABEZ INT I-MSP 9.8 | PIGZI INT I-MSP 12.7 | PINKE INT I-MSP 15.6 | HASTI INT I-MSP 18.5

3000 4000* 5000* 6000* 7000
299°
IM
GS 3.00°
TCH 54

0.2 | 6.4 NM | 3 NM | 3 NM | 2.9 NM | 2.9 NM

CATEGORY	A	B	C	D	E
S-ILS 30L	1173/40 350 (400-¾)				

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-INN	APP CRS	Rwy Idg	8000
110.7	300°	TDZE	823
Chan 44		Apt Elev	841

CONVERGING ILS RWY 30R

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

T
A NA

Simultaneous approach authorized with CONVERGING ILS Rwy 35.

MISSED APPROACH: Climbing right turn to 4000 via heading 040° and GEP VORTAC R-085 to WHISK INT/GEP 17.5 DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

RADAR REQUIRED

LOCALIZER 110.7 I-INN Chan 44

*When assigned by ATC, intercept glidepath at 4000, 5000 or 6000.

MISSED APCH FIX

117.3 GEP R-085 Chan 120

085° 265° R-046 R-011 R-037

117.7 FCM Chan 124

115.3 MSP Chan 100

115.7 FGT Chan 104

WHISK GEP 17.5

ALTERNATE MISSED APCH FIX

117.3 GEP R-085 Chan 120

011° 191° R-046 R-011 R-037

117.7 FCM Chan 124

115.3 MSP Chan 100

115.7 FGT Chan 104

WHISK FGT 32

1549 1539 1743 1290 1230 1040 1144 1085± 1006 949 932 1110± 1192 1033 1042 1060 1305

SAMMZ INT I-INN 9.7

(IF)

BONNA INT I-INN 12.7

3000 300° (3)

JACKO INT I-INN 6.7 RADAR

WULAM INT I-INN 15.6

(IAF)

GROVZ INT I-INN 18.5

*4000 (3)

*5000 (2.9)

*6000 300° (2.9)

R-018 R-031 R-044 R-055 R-064 120°

10 NM

1753

MSA GEP 25 NM

3500 090° 2700 360°

FARMINGTON 115.7 FGT Chan 104

ELEV 841 D

950± 996 906± 859± 865± TDZE 823 8200 X 150 0.3% DOWN 11,006 X 150 0.3% DOWN 10,000 X 200 0.3% DOWN 8000 X 150 0.3% DOWN 300°

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

4000 hdg 040° | GEP R-085 117.3 | WHISK △

VGSI and ILS glidepath not coincident

* When assigned by ATC, intercept glidepath at 4000, 5000 or 6000.

JACKO INT I-INN 6.7 RADAR 3000

SAMMZ INT I-INN 9.7 4000*

BONNA INT I-INN 12.7 5000*

WULAM INT I-INN 15.6 6000*

GROVZ INT I-INN 18.5 7000

300°

GS 3.00° TCH 55

6.6 NM 3 NM 3 NM 2.9 NM 2.9 NM

CATEGORY	A	B	C	D	E
S-ILS 30R	1273-1½ 450 (500-1½)				

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-BMA	APP CRS	Rwy Idg	8000
110.95	349°	TDZE	834
Chan 46 (Y)		Apt Elev	841

CONVERGING ILS RWY 35

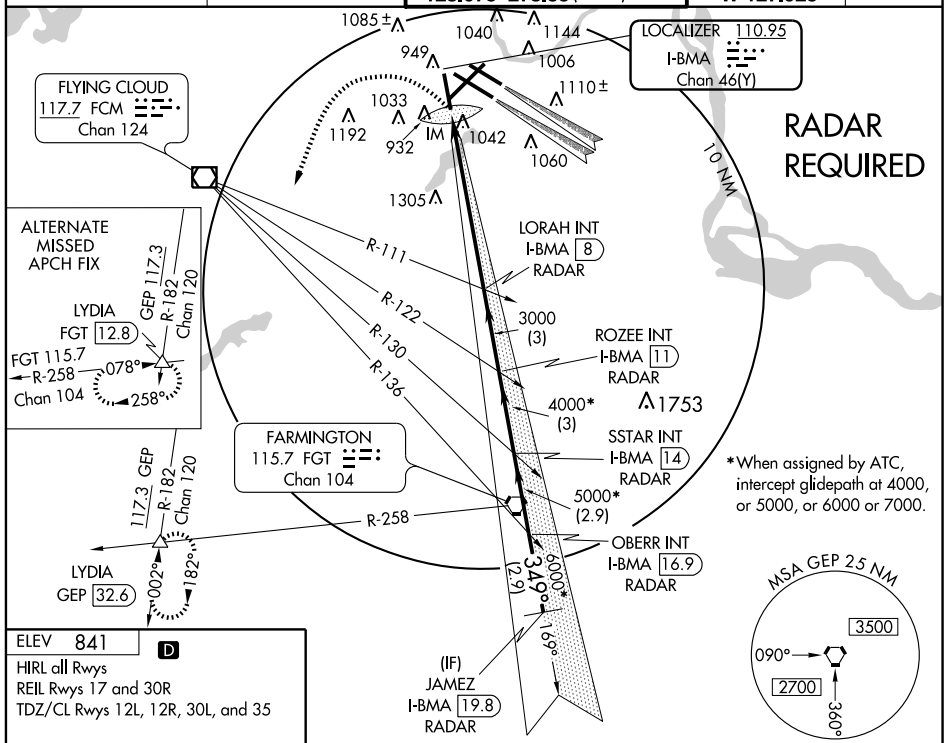
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

T NA — Inoperative table does not apply. No autoland on CONVERGING ILS RWY 35. Simultaneous approach authorized with CONVERGING ILS RWY 30L and CONVERGING ILS RWY 30R.

ALSF-2 (A)

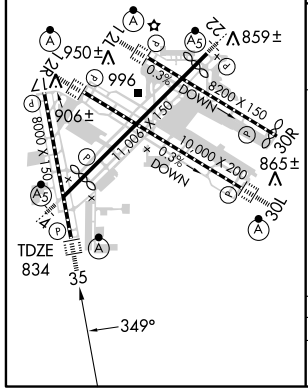
MISSED APPROACH: Climbing left turn to 5000 via heading 240° and GEP R-182 to LYDIA INT/GEP 32.6 DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	



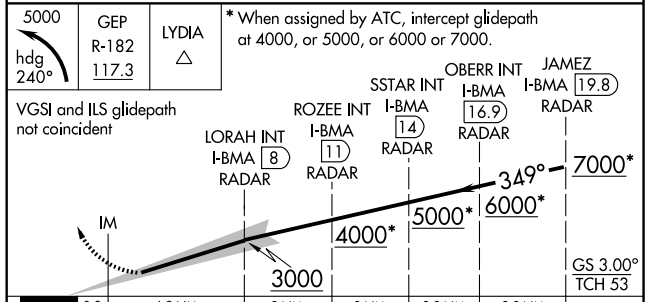
ELEV 841 D

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35



5000 hdg 240°	GEP R-182 117.3	LYDIA △

VGSI and ILS glidepath not coincident



CATEGORY	A	B	C	D
S-ILS 35	1684-3 850 (900-3)			

COULT THREE DEPARTURE

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN(MSP)
SI-264 (FAA)
MINNEAPOLIS, MINNESOTA

(COULT3.COULT) 10098

ATIS DEP 120.8
CLNC DEL
133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4

TAKE-OFF MINIMUMS:
Rwy 4, 12L, 12R, 17, 22: Standard.
Rwy 35: Standard with minimum climb of 219′ per NM to 2100.
Rwy 30L: Standard with minimum climb of 210′ per NM to 2100.
Rwy 30R: Standard with minimum climb of 220′ per NM to 2100.

GOPHER
117.3 GEP
Chan 120

EAU CLAIRE
112.9 EAU
Chan 76

MINNEAPOLIS
115.3 MSP
Chan 100

FLYING CLOUD
117.7 FCM
Chan 124

FARMINGTON
115.7 FGT
Chan 104

DELLS
117.0 DLL
Chan 117
N43°33.05′-W89°45.82′
L-28, H-5

R-119
119°
46
R-251
R-233
R-203
MSP 7
MSP 8
R-010

TAXEE
N44°42.15′
W92°29.56′
(15)
61

COULT
N44°33.40′
W92°12.51′
9000
*2600
119°
(19)
80

LMFRY
N44°22.24′
W91°51.03′
9000
*3500
116°
(103)
R-296

FALLS 1 MOA
R-6901A
R-6901B

N

DME aircraft Rwy 12L/12R
(For assigned 060° CW 100°)
3500

Non DME Aircraft Rwy 12L/12R
(For assigned 060° CW 100°)
3500

Rwy 17
(For assigned 230° CW 285°)
3500

DEPARTURE CROSSING RESTRICTIONS:
Runway 12L/R DME aircraft requires an ATC climb gradient of 546′ per NM to 3500.
Runway 12L/R Non-DME aircraft requires an ATC climb gradient of 594′ per NM to 3500.
Runway 17 requires an ATC climb gradient of 403′ per NM to 3500.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: RADAR required.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly assigned heading for radar vectors to intercept GEP R-119 to COULT INT/GEP 61 DME. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude.

DME EQUIPPED AIRCRAFT RWY 12L/R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

NON-DME EQUIPPED AIRCRAFT RWY 12L/R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross FGT R-010 at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAY 17: For assigned heading 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAYS 4, 22, 30L/R, 35: Initially assigned heading. Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

DELLS TRANSITION (COULT3.DLL): From over COULT INT via GEP R-119 to LMFRY, then via DLL R-296 to DLL VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL.
Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL.
Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL.
Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL.
Light poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL.
Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 17: Antenna 1272′ from DER, 562 right of centerline, 57′ AGL/891′ MSL.
Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL.
Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL.
Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL.
Light 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL.
Tree 2619′ from DER, on centerline, 79′ AGL/900′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL.
Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline , up to 80′ AGL/919′ MSL.
Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL.
Ground 28′ from DER, 490′ right of centerline 0′ AGL/844′ MSL.

RWY 30R: Building 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL.
Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL.
Light pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL.
Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/857′ MSL.
Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/914′ MSL.
Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL.
Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL.
Multiple buildings beginning 5.5 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL.
Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′ AGL/847′ MSL.
Light pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL.
Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL.
Pipe on building, 826′ from DER, 576′ left of centerline, 10′ AGL/825′ MSL.
OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

DARWIN THREE DEPARTURE (DWN3.DWN) 10042

MINNEAPOLIS-ST. PAUL INTL/WOLD-CHAMBERLAIN (MSP)
SL-264 (FAA)
MINNEAPOLIS, MINNESOTA

TAKE-OFF MINIMUMS

Rwy 4, 12L, 12R, 17, 22: Standard.
Rwy 30L: Standard with minimum climb of 210′ per NM to 2100.
Rwy 30R: Standard with minimum climb of 220′ per NM to 2100.
Rwy 35: Standard with minimum climb of 219′ per NM to 2100.

ATIS DEP 120.8
CLNC DEL
133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4

N

ST. CLOUD
112.1 STC
Chan 58

R-172

DARWIN
109.0 DWN
Chan 27
N45°05.25′-W94°27.23′

R-088

60
107

10000
*3800
271°
(167)

10000
(MRA)

R-095

INUNE
N45°01.01′
W93°59.54′

(20)

281°

R-281

33

MINNEAPOLIS
115.3 MSP
Chan 100

ABERDEEN
113.0 ABR
Chan 77
N45°25.04′-W98°22.12′
L-14, H-2

DME aircraft Rwy 12L/12R
(assigned 060° CW 100°)
3500

MSP 7

MSP 8

R-010

Rwy 17
(assigned 230° CW 285°)
3500

Non DME Aircraft Rwy 12L/12R
(assigned 060° CW 100°)
3500

FARMINGTON
115.7 FGT
Chan 104

DEPARTURE CROSSING RESTRICTIONS:

Runway 12L/R DME aircraft requires an ATC climb gradient of 546′ per NM to 3500.
Runway 12L/R Non-DME aircraft requires an ATC climb gradient of 594′ per NM to 3500.
Runway 17 requires an ATC climb gradient of 403′ per NM to 3500.

NOTE: RADAR required.
NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly assigned heading for radar vectors to intercept MSP R-281 and DWN R-095 to DWN VORTAC. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude.

DME EQUIPPED AIRCRAFT RWY 12L/R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

NON DME EQUIPPED AIRCRAFT RWY 12L/R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross FGT R-010 at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAY 17: For assigned headings from 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAYS 4, 22, 30L/R, 35: Initially assigned heading, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

ABERDEEN TRANSITION (DWN2.ABR): From over DWN VORTAC via DWN R-271 and ABR R-088 to ABR VOR/DME.

TAKE-OFF OBSTACLE NOTES:

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL.
Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL.
Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL.
Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL.
Light poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL.
Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL.
Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′ AGL/847′ MSL.
Light pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL.
Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL.
Pipe on building, 826′ from DER, 576′ left of centerline, 10′ AGL/825′ MSL.
OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL.
Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL.
Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL.
Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL
Light 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL.
Tree 2619′ from DER, on centerline, 79′ AGL/900′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL.
Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline , up to 80′ AGL/919′ MSL.
Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL.
Ground 28′ from DER, 490′ right of centerline 0′ AGL/844′ MSL.

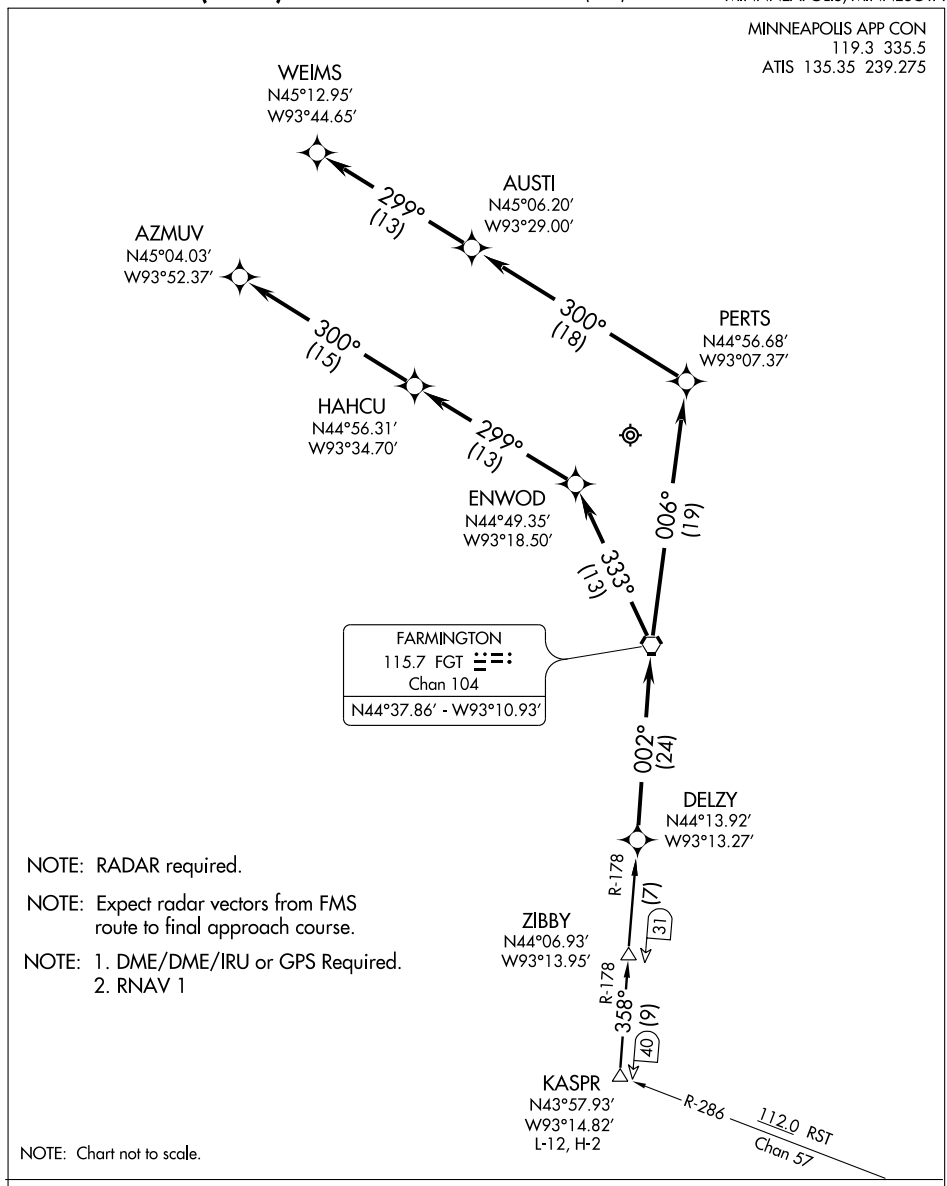
RWY 30R: Building 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL.
Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL.
Light pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL.
Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/857′ MSL.
Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/914′ MSL.
Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL.
Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL.
Multiple buildings beginning 5.5 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

DELZY ONE (FMS) ARRIVAL

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN
ST-264 (FAA) MINNNEAPOLIS, MINNESOTA



NOTE: RADAR required.

NOTE: Expect radar vectors from FMS route to final approach course.

NOTE: 1. DME/DME/IRU or GPS Required.
2. RNAV 1

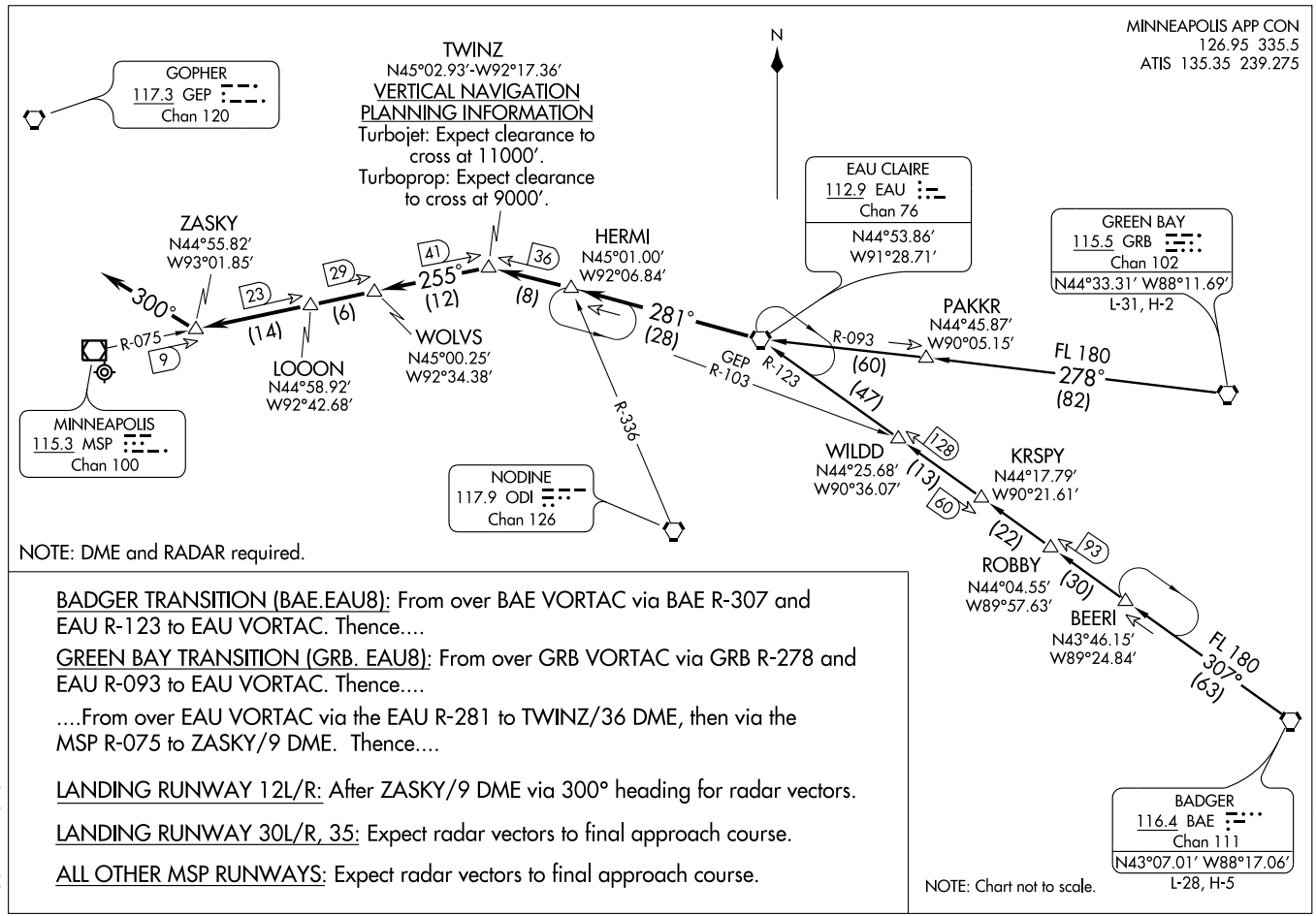
NOTE: Chart not to scale.

Via the KASPR STAR from over DELZY WP: Thence

FOR RUNWAY 12L ARRIVALS: To FGT VORTAC to PERTS WP to AUSTI WP to WEIMS WP.

FOR RUNWAY 12R ARRIVALS: To FGT VORTAC to ENWOD WP to HAHCU WP to AZMUV WP.

NC-1, 03 JUN 2010 to 01 JUL 2010



BADGER TRANSITION (BAE.EAU8): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC. Thence....

GREEN BAY TRANSITION (GRB. EAU8): From over GRB VORTAC via GRB R-278 and EAU R-093 to EAU VORTAC. Thence....

....From over EAU VORTAC via the EAU R-281 to TWINZ/36 DME, then via the MSP R-075 to ZASKY/9 DME. Thence....

LANDING RUNWAY 12L/R: After ZASKY/9 DME via 300° heading for radar vectors.

LANDING RUNWAY 30L/R, 35: Expect radar vectors to final approach course.

ALL OTHER MSP RUNWAYS: Expect radar vectors to final approach course.

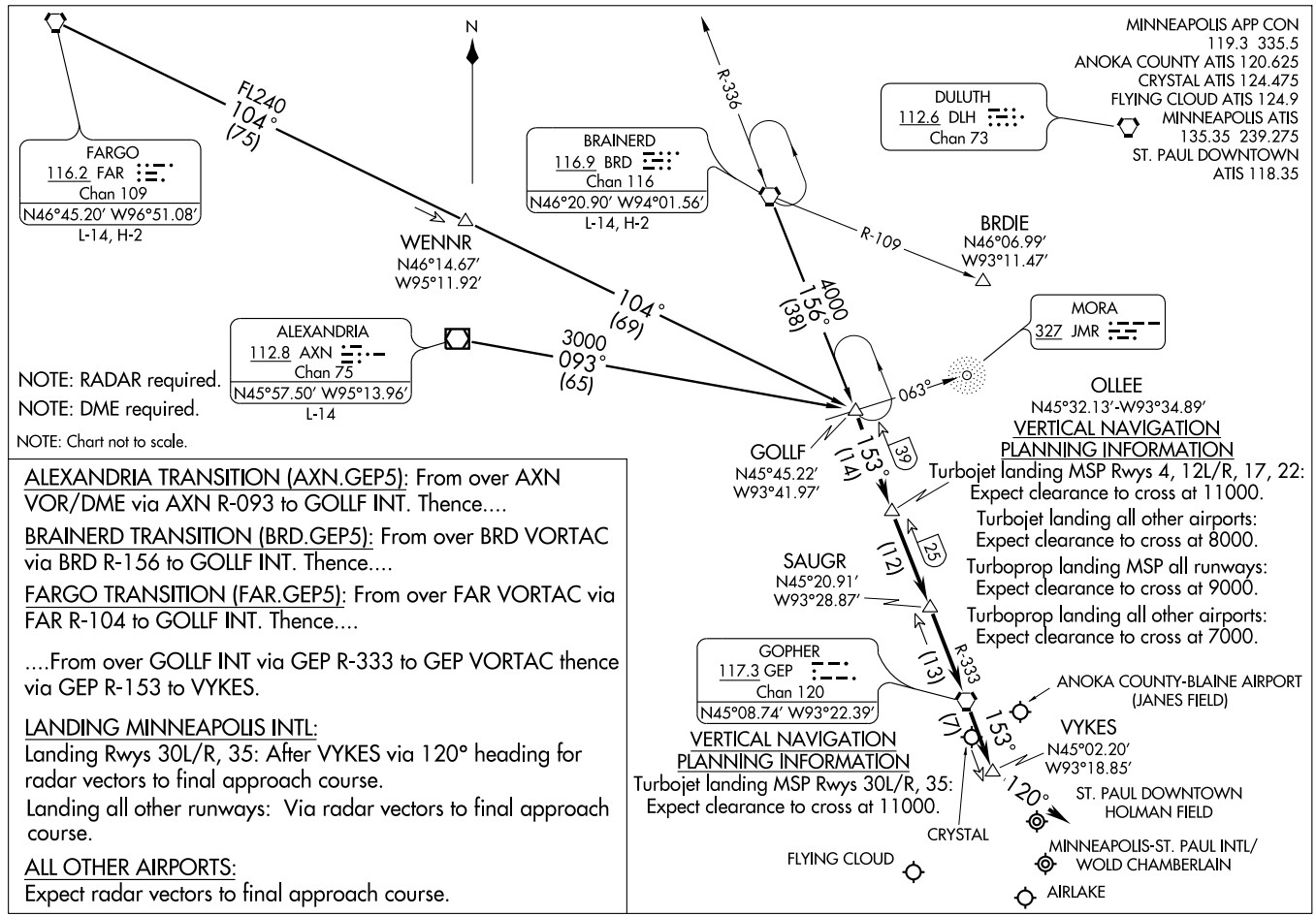
EAU CLAIRE EIGHT ARRIVAL

(EAU.EAU8) 08157

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN

ST-264 (FAA)

MINNEAPOLIS, MINNESOTA


GOPHER FIVE ARRIVAL (GEP.GEP5) 08157
ST-264 (FAA)
MINNEAPOLIS, MINNESOTA
MINNEAPOLIS APP CON
119.3 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
MINNEAPOLIS ATIS
135.35 239.275
ST. PAUL DOWNTOWN
ATIS 118.35
N
FARGO
116.2 FAR
Chan 109
N46°45.20' W96°51.08'
L-14, H-2
FL240
104°
(75)
WENNR
N46°14.67'
W95°11.92'
BRAINERD
116.9 BRD
Chan 116
N46°20.90' W94°01.56'
L-14, H-2
R-336
DULUTH
112.6 DLH
Chan 73
R-109
BRDIE
N46°06.99'
W93°11.47'
4000
156°
(38)
MORA
327 JMR
ALEXANDRIA
112.8 AXN
Chan 75
N45°57.50' W95°13.96'
L-14
3000
093°
(65)
104°
(69)
063°
OLLEE
N45°32.13'-W93°34.89'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 4, 12L/R, 17, 22:
Expect clearance to cross at 11000.
Turbojet landing all other airports:
Expect clearance to cross at 8000.
Turboprop landing MSP all runways:
Expect clearance to cross at 9000.
Turboprop landing all other airports:
Expect clearance to cross at 7000.
GOLLF
N45°45.22'
W93°41.97'
153°
(14)
39
SAUGR
N45°20.91'
W93°28.87'
(12)
25
R-333
(13)
GOPHER
117.3 GEP
Chan 120
N45°08.74' W93°22.39'
(7)
153°
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 30L/R, 35:
Expect clearance to cross at 11000.
ANOKA COUNTY-BLAINE AIRPORT
(JANES FIELD)
VYKES
N45°02.20'
W93°18.85'
120°
ST. PAUL DOWNTOWN
HOLMAN FIELD
CRYSTAL
MINNEAPOLIS-ST. PAUL INTL/
WOLD CHAMBERLAIN
FLYING CLOUD
AIRLAKE
NOTE: RADAR required.
NOTE: DME required.
NOTE: Chart not to scale.
ALEXANDRIA TRANSITION (AXN.GEP5): From over AXN VOR/DME via AXN R-093 to GOLLF INT. Thence....
BRAINERD TRANSITION (BRD.GEP5): From over BRD VORTAC via BRD R-156 to GOLLF INT. Thence....
FARGO TRANSITION (FAR.GEP5): From over FAR VORTAC via FAR R-104 to GOLLF INT. Thence....
....From over GOLLF INT via GEP R-333 to GEP VORTAC thence via GEP R-153 to VYKES.
LANDING MINNEAPOLIS INTL:
Landing Rwys 30L/R, 35: After VYKES via 120° heading for radar vectors to final approach course.
Landing all other runways: Via radar vectors to final approach course.
ALL OTHER AIRPORTS:
Expect radar vectors to final approach course.

ILS or LOC RWY 12L

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

LOC/DME I-PJL	APP CRS	Rwy Idg	7620
110.7	120°	TDZE	839
Chan 44		Apt Elev	841

For inoperative ALSF, increase S-ILS 12L Cat E visibility to RVR 4000 and S-LOC 12L Cat E visibility to 2½ mile. For inoperative ALSF when using AASUN fix minimums, increase S-LOC Cat E visibility to 1½ mile.

ALSF-2

MISSED APPROACH: Climb to 1500, then climbing left turn to 4000 via heading 350° and FCM VOR/DME R-046 to WHISK Int/GEP 17.5 DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

ALTERNATE MISSED APCH FIX GOPHER GEP 117.3 Chan 120 297° 117° R-297

RADAR REQUIRED

R-085 085° 265° WHISK GEP 17.5

GOPHER 117.3 GEP Chan 120

R-232 R-217 R-200 R-183 R-170 300° 120° *6000 (2.9) *5000 (2.9) *4000 (3) 3000 (3) 10 NM 2438 FCM R-046 MSP R-037 R-011

MINNEAPOLIS 115.3 MSP Chan 100

(IAF) CCJAY INT I-PJL 19.4 UBTYA INT I-PJL 16.5 (IF) ALGIN INT I-PJL 13.6 HAMML INT I-PJL 10.7 WASHY INT I-PJL 7.7 RADAR 1743 1549 1539 1290 1230 1085± 1040 IM 1144 1006 AASUN I-PJL 3.5 979± 949 RADAR 1033 932 1192 1042 1110± 1060 1305

FLYING CLOUD 117.7 FCM Chan 124

LOCALIZER 110.7 I-PJL Chan 44

115.7 FGT Chan 104

MSA FCM 25 NM 180° 3500 270° 2800

* When assigned by ATC, intercept glidepath at 4000 or 5000 or 6000.

1500 4000 hdg 350° FCM R-046 117.7 WHISK

CCJAY INT I-PJL 19.4 UBTYA INT I-PJL 16.5 ALGIN INT I-PJL 13.6 HAMML INT I-PJL 10.7 WASHY INT I-PJL 7.7 RADAR 3000 AASUN I-PJL 3.5 RADAR # LOC only I-PJL 2.1 I-PJL 1.2 IM

7000 *6000 120° *5000 *4000 3000 #1520

GS 3.00° TCH 52

VGSI and ILS glidepath not coincident

2.9 NM 2.9 NM 3 NM 3 NM 4.2 NM 1.3 NM 0.9 0.1

CATEGORY	A	B	C	D	E
S-ILS 12L	1039/18 200 (200-½)				
S-LOC 12L	1520/24 681 (700-½)		1520-1½ 681 (700-1½)	1520-1¾ 681 (700-1¾)	1520-2 681 (700-2)
CIRCLING	1520-1 679 (700-1)		1520-2 679 (700-2)	1520-2¼ 679 (700-2¼)	1660-3 819 (900-3)
AASUN FIX MINIMUMS					
S-LOC 12L	1240/24 401 (400-½)		1240/40 401 (400-¾)		1240/50 401 (400-1)
CIRCLING	1360-1 519 (600-1)		1360-1½ 519 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)

ELEV 841 D

120° 6.5 NM from FAF

TDZE 839

22 859± 4 950± 0.3% DOWN 8200 X 150 12R 996 17 30R 906± 11,000 X 150 0.3% DOWN 10,000 X 200 865± 30L 35

HIRL all Rwys

REIL Rwys 17 and 30R

TDZ/CL Rwys 12L, 12R, 30L, and 35

FAF to MAP 6.5 NM

Knots	60	90	120	150	180
Min:Sec	6:30	4:20	3:15	2:36	2:10

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-HKZ	APP CRS	Rwy Idg 10000
110.3	120°	TDZE 841
Chan 40		Apt Elev 841

ILS or LOC RWY 12R

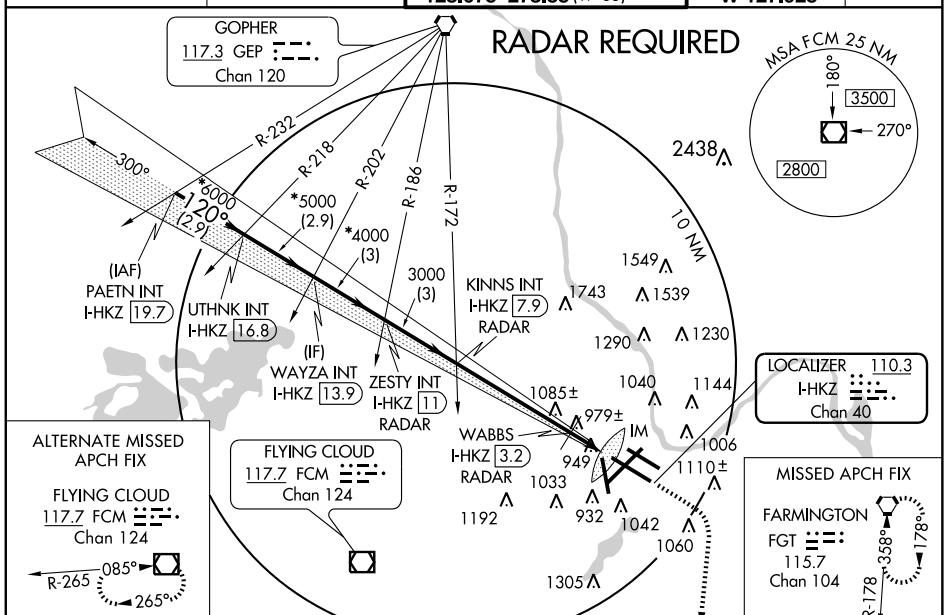
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

For inoperative ALSF, increase S-ILS 12R Cat E visibility to RVR 4000 and S-LOC 12R Cat E visibility to 2. WABBS fix minimums: For inoperative ALSF, increase S-LOC 12R Cat E visibility to 1½.

ALSF-2

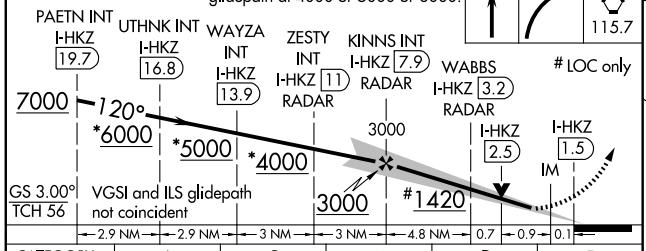
MISSED APPROACH: Climb to 1500 then climbing right turn to 5000 direct FGT VORTAC and hold, continue climb-in-hold to 5000.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	



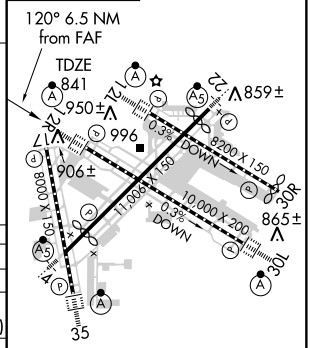
* When assigned by ATC, intercept glidepath at 4000 or 5000 or 6000.

1500	5000	FGT
		115.7



CATEGORY	A	B	C	D	E
S-ILS 12R	1041/18 200 (200-½)				
S-LOC 12R	1420/24 579 (600-½)		1420/50 579 (600-1)	1420/60 579 (600-1¼)	1420-1½ 579 (600-1½)
CIRCLING	1420-1 579 (600-1)		1420-1½ 579 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)
WABBS FIX MINIMUMS					
S-LOC 12R	1240/24 399 (400-½)			1240/40 399 (400-¾)	1240/50 399 (400-1)
CIRCLING	1360-1 519 (600-1)		1360-1½ 519 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)

ELEV 841 D



HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

FAF to MAP 6.5 NM

Knots	60	90	120	150	180
Min:Sec	6:30	4:20	3:15	2:36	2:10

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-MSP	APP CRS	Rwy Idg 10000
110.3	299°	TDZE 823
Chan 40		Apt Elev 841

ILS or LOC RWY 30L

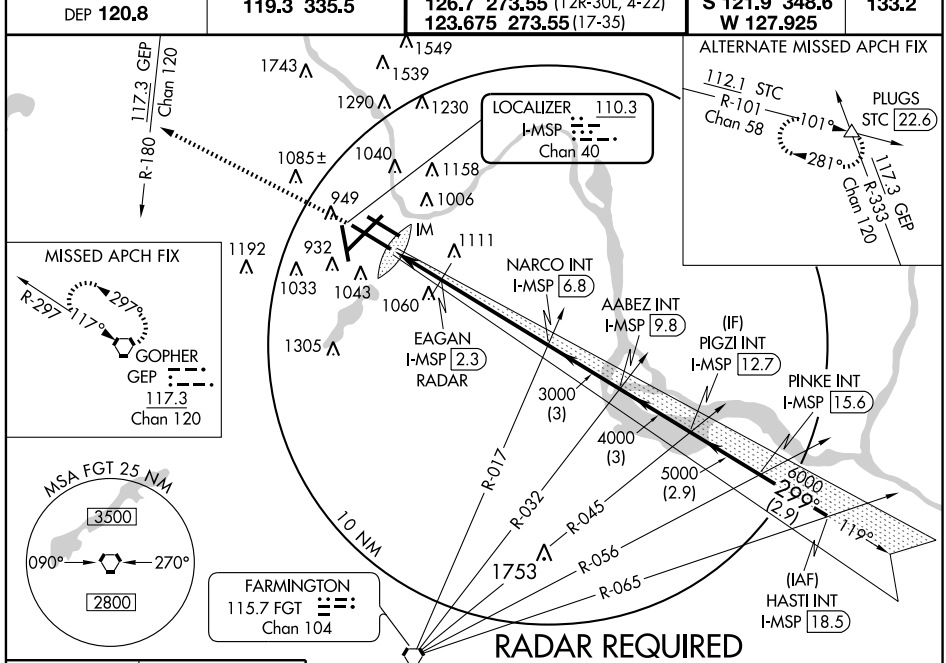
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

For inoperative ALSF, increase S-ILS 30L Cat E visibility to RVR 4000 and S-LOC 30L Cat E visibility to 2.

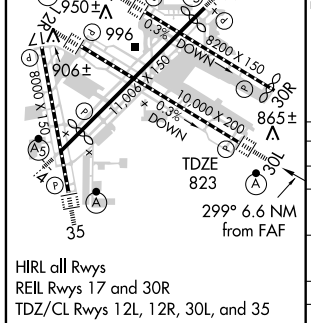
ALSF-2

MISSED APPROACH: Climb to 1300, then climb to 4000 via heading 295° and GEP VORTAC R-180 to GEP and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

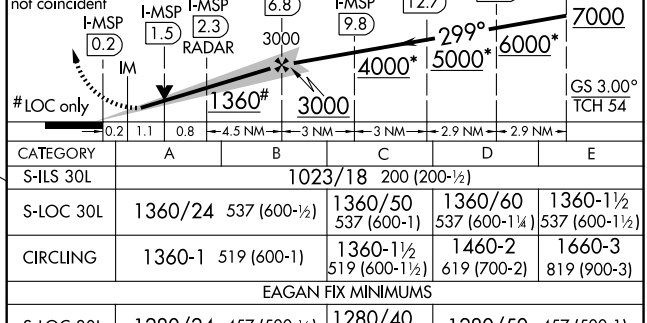


ELEV 841 D



HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

FAF to MAP 6.6 NM					
Knots	60	90	120	150	180
Min:Sec	6:36	4:24	3:18	2:38	2:12



CATEGORY	A	B	C	D	E
S-ILS 30L	1023/18 200 (200-½)				
S-LOC 30L	1360/24 537 (600-½)		1360/50 537 (600-1)	1360/60 537 (600-1¼)	1360-1½ 537 (600-1½)
CIRCLING	1360-1 519 (600-1)		1360-1½ 519 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)
EAGAN FIX MINIMUMS					
S-LOC 30L	1280/24 457 (500-½)		1280/40 457 (500-¾)	1280/50 457 (500-1)	
CIRCLING	1360-1 519 (600-1)		1360-1½ 519 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)

NC-1. 03 JUN 2010 to 01 JUL 2010

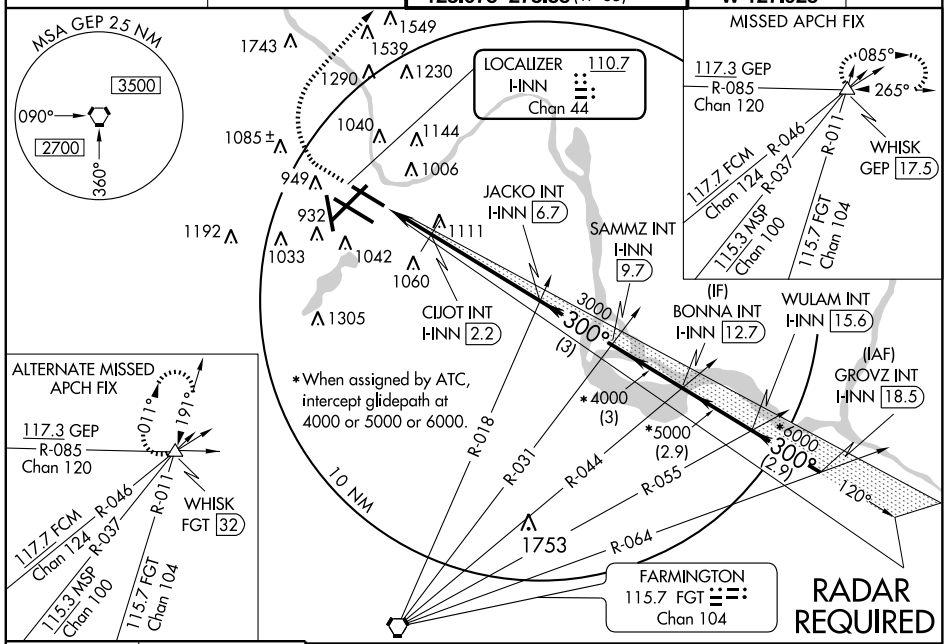
LOC/DME I-INN	APP CRS	Rwy Idg	8000
110.7	300°	TDZE	823
Chan 44		Apt Elev	841

ILS or LOC RWY 30R

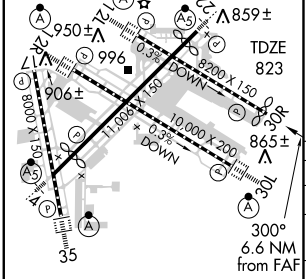
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

MISSED APPROACH: Climb to 1300 then climbing right turn to 4000 via heading 040° and GEP VORTAC R-085 to WHISK INT/17.5 DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

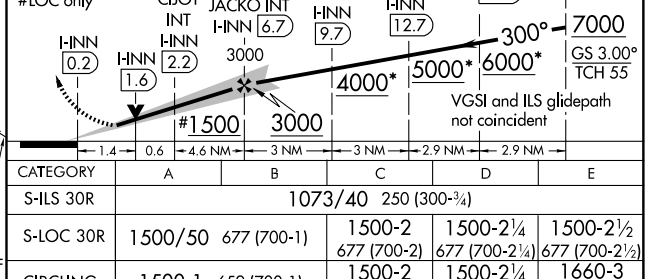


ELEV 841 D



HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

FAF to MAP 6.6 NM					
Knots	60	90	120	150	180
Min:Sec	6:36	4:24	3:18	2:38	2:12



CATEGORY	A	B	C	D	E
S-ILS 30R	1073/40 250 (300-¾)				
S-LOC 30R	1500/50 677 (700-1)		1500-2 677 (700-2)	1500-2¼ 677 (700-2¼)	1500-2½ 677 (700-2½)
CIRCLING	1500-1 659 (700-1)		1500-2 659 (700-2)	1500-2¼ 659 (700-2¼)	1660-3 819 (900-3)
DME MINIMUMS					
S-LOC 30R	1340/50 517 (500-1)		1340-1½ 517 (500-1½)	1340-1¾ 517 (500-1¾)	
CIRCLING	1360-1 519 (600-1)		1360-1½ 519 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-BMA	APP CRS	Rwy Idg	8000
110.95	349°	TDZE	834
Chan 46 (Y)		Apt Elev	841

ILS or LOC RWY 35

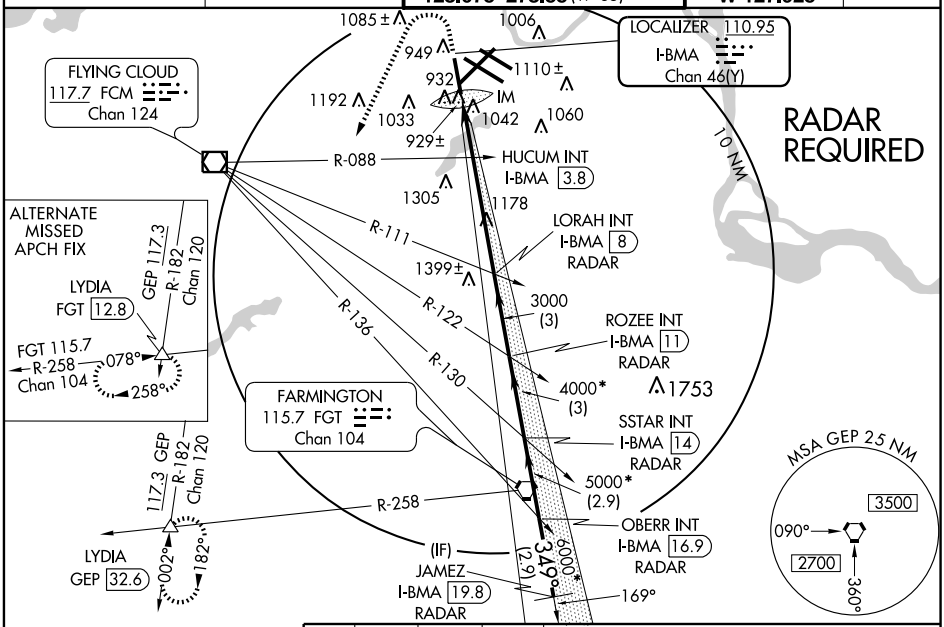
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

For inoperative ALSF, increase S-ILS 35 Cat E visibility to RVR 4000, increase all S-LOC 35 Cat E visibilities to ½ mile.

ALSF-2

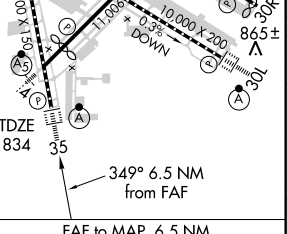
MISSED APPROACH: Climb to 1600 then climbing left turn to 5000 via heading 240° and GEP R-182 to LYDIA INT/GEP 32.6 DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	



ELEV 841	D

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

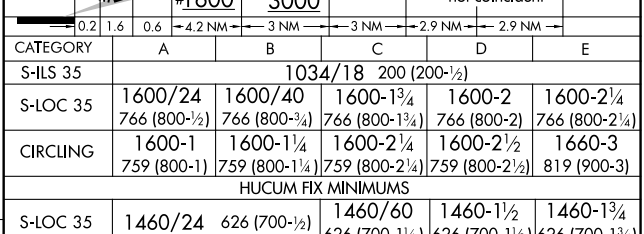


FAF to MAP 6.5 NM

Knots	60	90	120	150	180
Min:Sec	6:30	4:20	3:15	2:36	2:10

1600	5000 hdg 240°	GEP R-182 117.3	LYDIA △

* When assigned by ATC, intercept glidepath at 4000 or 5000 or 6000 or 7000.



CATEGORY	A	B	C	D	E
S-ILS 35	1034/18 200 (200-½)				
S-LOC 35	1600/24 766 (800-½)	1600/40 766 (800-¾)	1600-1¾ 766 (800-1¾)	1600-2 766 (800-2)	1600-2¼ 766 (800-2¼)
CIRCLING	1600-1 759 (800-1)	1600-1¼ 759 (800-1¼)	1600-2¼ 759 (800-2¼)	1600-2½ 759 (800-2½)	1660-3 819 (900-3)
HUCUM FIX MINIMUMS					
S-LOC 35	1460/24 626 (700-½)		1460/60 626 (700-1¼)	1460-1½ 626 (700-1½)	1460-1¾ 626 (700-1¾)
CIRCLING	1460-1 619 (700-1)		1460-1¾ 619 (700-1¾)	1460-2 619 (700-2)	1660-3 819 (900-3)

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-PJL	APP CRS	Rwy Idg	7620
110.7	120°	TDZE	839
Chan 44		Apt Elev	841

ILS RWY 12L (CAT II)

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

ALSF-2

MISSED APPROACH: Climb to 1500, then climbing left turn to 4000 via heading 350° and FCM VOR/DME R-046 to WHISK Int/GEP 17.5 DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

ALTERNATE MISSED APCH FIX GOPHER GEP 117.3 Chan 120

R-297 297° 117°

RADAR REQUIRED

GOPHER 117.3 GEP Chan 120

MINNEAPOLIS 115.3 MSP Chan 100

WHISK GEP 17.5

085° 265° R-085 R-232 R-217 R-200 R-183 R-170 R-011 FCM R-046 MSP R-037

10 NM

2438

300° 120° *6000 (2.9) *5000 (2.9) *4000 (3) 3000 (3)

(IAF) CCJAY INT I-PJL 19.4

UBTYA INT I-PJL 16.5

(IF) ALGIN INT I-PJL 13.6

HAMML INT I-PJL 10.7

WASHY INT I-PJL 7.7 RADAR

1549 1539 1743 1290 1230 1085± 1040 1144 IM 979± 949 1006 932 1192 1033 1042 1110± 1060 1305

FLYING CLOUD 117.7 FCM Chan 124

LOCALIZER 110.7 I-PJL Chan 44

115.7 FGT Chan 104

MSA FCM 25 NM 180° 3500 270° 2800

ELEV 841 D

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

NC-1. 03 JUN 2010 to 01 JUL 2010

ILS RWY 12L (CAT III)

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

LOC/DME I-PJL	APP CRS	Rwy Idg	7620
110.7	120°	TDZE	839
Chan 44		Apt Elev	841

ALSF-2

MISSED APPROACH: Climb to 1500, then climbing left turn to 4000 via heading 350° and FCM VOR/DME R-046 to WHISK Int/GEP 17.5 DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

ALTERNATE MISSED APCH FIX GOPHER GEP 117.3 Chan 120

R-297 297° 117°

RADAR REQUIRED

GOPHER 117.3 GEP Chan 120

MINNEAPOLIS 115.3 MSP Chan 100

R-085 085° 265° WHISK GEP 17.5

R-232 R-217 R-200 R-183 R-170 R-011 FCM R-046 MSP R-037

300° 120° *6000 (2.9) *5000 (2.9) *4000 (3) 3000 (3)

2438 1549 1539 1743 1290 1230 1085± 1040 1144 IM 979± 949 1006 932 1192 1033 1042 1110± 1060 1305

10 NM

(IAF) CCJAY INT I-PJL 19.4

UBTYA INT I-PJL 16.5

(IF) ALGIN INT I-PJL 13.6

HAMML INT I-PJL 10.7

WASHY INT I-PJL 7.7 RADAR

FLYING CLOUD 117.7 FCM Chan 125

LOCALIZER 110.7 I-PJL Chan 44

115.7 FGT Chan 104

MSA FCM 25 NM 180° 3500 270° 2800

ELEV 841 D

* When assigned by ATC, intercept glidepath at 4000 or 5000 or 6000.

1500 | 4000 hdg 350° | FCM R-046 117.7 | WHISK

CCJAY INT I-PJL 19.4 — UBTYA INT I-PJL 16.5 — ALGIN INT I-PJL 13.6 — HAMML INT I-PJL 10.7 — WASHY INT I-PJL 7.7 RADAR — IM

VGSI and ILS glidepath not coincident

7000 *6000 120° *5000 *4000 3000 950 MSL 839

GS 3.00° TCH 52

2.9 NM | 2.9 NM | 3 NM | 3 NM | 6.4 NM | 902' | 1350'

CATEGORY	A	B	C	D
S-ILS 12L		CAT IIIa	RVR 07	
S-ILS 12L		CAT IIIb	RVR 06	
S-ILS 12L		CAT IIIc	NA	

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

TDZE 839

950± 996 906± 859± 865± 22 4 7 25 30R 30L 12R 12L 35 8000 X 150 9200 X 150 11,000 X 150 10,000 X 200 0.3% DOWN 0.3% DOWN

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

NC-1. 03 JUN 2010 to 01 JUL 2010

MINNEAPOLIS, MINNESOTA

AL-264 (FAA)

10098

ILS RWY 12R (CAT II)

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

LOC/DME I-HKZ	APP CRS	Rwy Idg	10000
110.3	120°	TDZE	841
Chan 40		Apt Elev	841

ALSF-2

MISSED APPROACH: Climb to 1500 then climbing right turn to 5000 direct FGT VORTAC and hold, continue climb-in-hold to 5000.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

GOPHER
117.3 GEP
Chan 120

RADAR REQUIRED

MSA FCM 25 NM
180°
3500
270°
2800

2438

R-232 R-218 R-202 R-186 R-172

300° 120°

*6000 (2.9)
*5000 (2.9)
*4000 (3)
3000 (3)

10 NM

(IAF)
PAETN INT
I-HKZ 19.7

UTHNK INT
I-HKZ 16.8

(IF)
WAYZA INT
I-HKZ 13.9

ZESTY INT
I-HKZ 11
RADAR

KINNS INT
I-HKZ 7.9
RADAR

1549 1743 1539 1290 1230 1040 1144 1085± 979± IM 1006 1110± 949 1033 1192 932 1042 1060 1305

LOCALIZER 110.3
I-HKZ
Chan 40

FLYING CLOUD
117.7 FCM
Chan 124

MISSED APCH FIX
FARMINGTON
FGT
115.7
Chan 104
R-178
358°
178°

ALTERNATE MISSED APCH FIX
FLYING CLOUD
117.7 FCM
Chan 124
R-265
085°
265°

ELEV 841 D

TDZE 841

950± 996 906± 859± 865± 30R 30L 35

12L 12R 17 17L 22 22L

8200 X 150 0.5% DOWN
8000 X 150
11,000 X 150 * 0.5% DOWN
10,000 X 200

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

* When assigned by ATC, intercept glidepath at 4000 or 5000 or 6000.

1500	5000	FGT
		115.7

VGSI and ILS glidepath not coincident

PAETN INT I-HKZ 19.7
UTHNK INT I-HKZ 16.8
WAYZA INT I-HKZ 13.9
ZESTY INT I-HKZ 11 RADAR
KINNS INT I-HKZ 7.9 RADAR

7000 *6000 *5000 120° *4000 3000 3000

DH RA 106
IM
MSL 841

GS 3.00°
TCH 56

2.9 NM | 2.9 NM | 3 NM | 3 NM | 6.3 NM | 878' | 1030'

CATEGORY	A	B	C	D
S-ILS 12R	RA 106/12 100 DA 941			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-HKZ	APP CRS	Rwy Idg 10000
110.3	120°	TDZE 841
Chan 40		Apt Elev 841

ILS RWY 12R (CAT III)

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

ALSF-2

MISSED APPROACH: Climb to 1500 then climbing right turn to 5000 direct FGT VORTAC and hold, continue climb-in-hold to 5000.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

GOPHER 117.3 GEP Chan 120

RADAR REQUIRED

MSA FCM 25 NM: 180°–3500, 270°–2800

2438

R-232 R-218 R-202 R-186 R-172

300° 120°

*6000 (2.9) *5000 (2.9) *4000 (3) 3000 (3)

10 NM

(IAF) PAETN INT I-HKZ 19.7

UTHNK INT I-HKZ 16.8

(IF) WAYZA INT I-HKZ 13.9

ZESTY INT I-HKZ 11 RADAR

KINNS INT I-HKZ 7.9 RADAR

1549 1743 1539 1290 1230 1040 1144 1085± 979± IM 1006 1110± 949 1033 1192 932 1042 1060 1305

LOCALIZER 110.3 I-HKZ Chan 40

FLYING CLOUD 117.7 FCM Chan 124

MISSED APCH FIX: FARMINGTON FGT 115.7 Chan 104; 358°–178°, R-178

ALTERNATE MISSED APCH FIX: FLYING CLOUD 117.7 FCM Chan 124; R-265 085°–265°

ELEV 841 D

TDZE 841

950± 996 906± 859± 865± 22L 22R 4L 4R 12L 12R 30L 30R 35

8000 X 150 DOWN 0.3% 8000 X 150 DOWN 0.3% 11,000 X 150 10,000 X 200

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

*When assiged by ATC, intercept glidepath at 4000 or 5000 or 6000.

1500	5000	FGT 115.7

VGSI and ILS glidepath not coincident

PAETN INT I-HKZ 19.7 — UTHNK INT I-HKZ 16.8 — WAYZA INT I-HKZ 13.9 — ZESTY INT I-HKZ 11 RADAR — KINNS INT I-HKZ 7.9 RADAR

7000 *6000 *5000 *4000 3000 120° IM 937 MSL 841

GS 3.00° TCH 56

2.9 NM | 2.9 NM | 3 NM | 3 NM | 6.3 NM | 858' | 1030'

CATEGORY	A	B	C	D
S-ILS 12R		CAT IIIa	RVR 07	
S-ILS 12R		CAT IIIb	NA	
S-ILS 12R		CAT IIIc	NA	

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NC-1. 03 JUN 2010 to 01 JUL 2010

MINNEAPOLIS, MINNESOTA

AL-264 (FAA)

LOC/DME I-MSP	APP CRS	Rwy Idg 10000
110.3	299°	TDZE 823
Chan 40		Apt Elev 841

ILS RWY 30L (CAT II)

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

T
A

ALSF-2

MISSED APPROACH: Climb to 1300, then climb to 4000 via heading 295° and GEP VORTAC R-180 to GEP and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

RADAR REQUIRED

117.3 GEP Chan 120

R-180

1549 1743 1539 1290 1230 1085± 1040 1158 949 1006 1192 932 1111 1033 1043 1060 1305

LOCALIZER 110.3 I-MSP Chan 40

IM

NARCO INT I-MSP 6.8

AABEZ INT I-MSP 9.8

(IF) PIGZI INT I-MSP 12.7

PINKE INT I-MSP 15.6

3000 (3)

4000 (3)

5000 (2.9)

6000 299° (2.9)

119°

10 NM

R-017 R-032 R-045 R-056 R-065

1753

FARMINGTON 115.7 FGT Chan 104

(IAF) HASTI INT I-MSP 18.5

ALTERNATE MISSED APCH FIX

112.1 STC R-101 Chan 58

101°

281°

PLUGS STC 22.6

117.3 GEP R-333 Chan 120

MISSED APCH FIX

R-297 297° 117°

GOPHER GEP 117.3 Chan 120

MSA FGT 25 NM

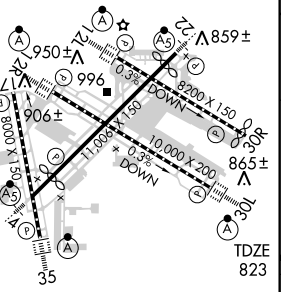
3500

090° 270°

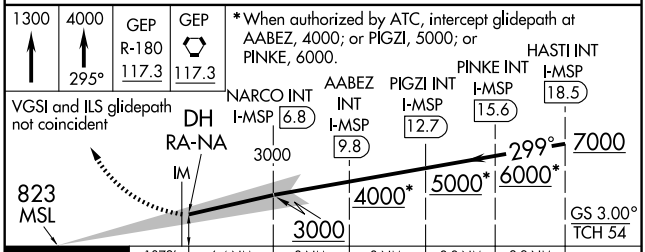
2800

Missed approach obstructions require climb gradient of at least 500 FPM/100K, 750 FPM/150K, 1000 FPM/200K, no wind conditions. Aircraft to 885 feet MSL 789 feet north of Rwy centerline.

ELEV 841 D



HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35



CATEGORY	A	B	C	D
S-ILS 30L	RA-NA/12 110 DA 933			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-BMA	APP CRS	Rwy Idg	8000
110.95	349°	TDZE	834
Chan 46 (Y)		Apt Elev	841

ILS RWY 35 (CAT II)

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

ALSF-2

MISSED APPROACH: Climb to 1600 then climbing left turn to 5000 via heading 240° and GEP R-182 to LYDIA INT/ GEP 32.6 DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

LOCALIZER 110.95 I-BMA Chan 46(Y)

FLYING CLOUD 117.7 FCM Chan 124

RADAR REQUIRED

10 NM

ALTERNATE MISSED APCH FIX

LYDIA FGT 12.8

GEP 117.3 R-182 Chan 120

FGT 115.7 R-258 Chan 104

078° 258°

FARMINGTON 115.7 FGT Chan 104

LYDIA GEP 32.6

002° 182°

1085± 1006 949 932 1110± 1192 1033 IM 1042 1060 929± 1305 1178 1399± 1753

R-111 R-122 R-130 R-136 R-258

LORAH INT I-BMA 8 RADAR

ROZEE INT I-BMA 11 RADAR

SSTAR INT I-BMA 14 RADAR

OBERR INT I-BMA 16.9 RADAR

JAMEZ I-BMA 19.8 RADAR

3000 (3)

4000* (3)

5000* (2.9)

9000* (2.9)

(IF)

349°

169°

MSA GEP 25 NM

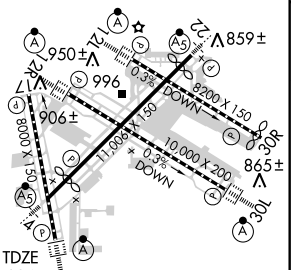
3500

090°

2700

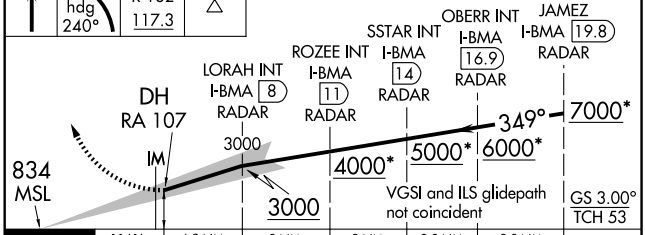
360°

ELEV 841 D



1600	5000 hdg 240°	GEP R-182 117.3	LYDIA △

* When assigned by ATC, intercept glidepath at 4000 or 5000 or 6000 or 7000.



CATEGORY	A	B	C	D
S-ILS 35	RA 107/12 110 DA 944			

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NC-1, 03 JUN 2010 to 01 JUL 2010

ILS RWY 35 (CAT III)

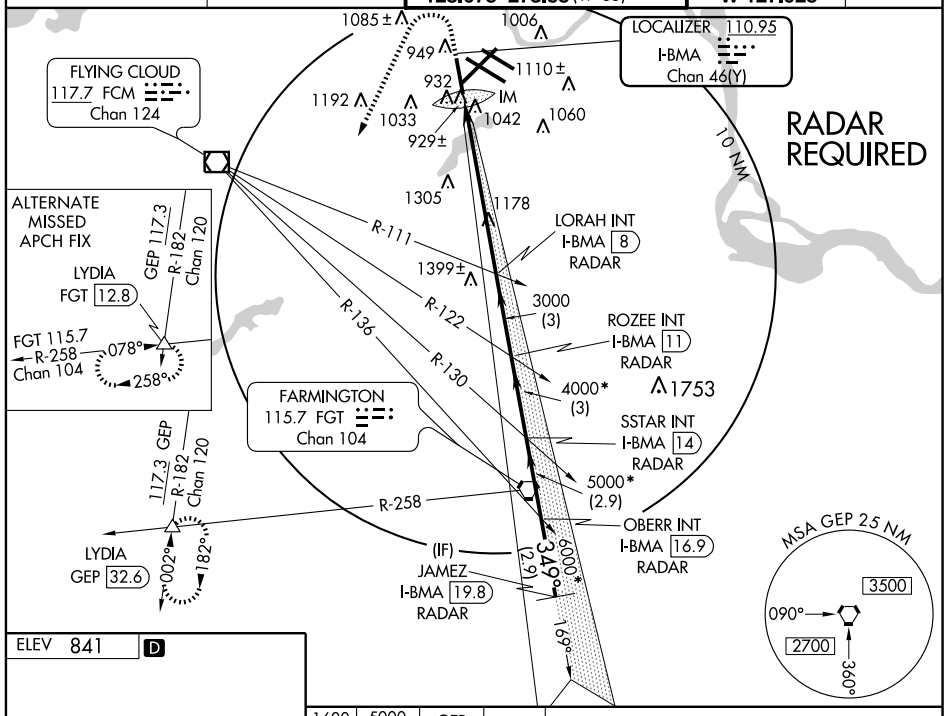
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

LOC/DME I-BMA	APP CRS	Rwy Idg	8000
110.95	349°	TDZE	834
Chan 46 (Y)		Apt Elev	841

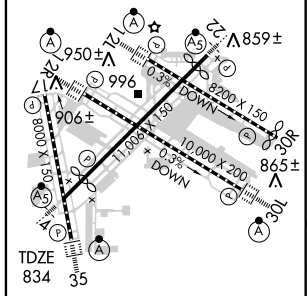
ALSF-2

MISSED APPROACH: Climb to 1600 then climbing left turn to 5000 via heading 240° and GEP R-182 to LYDIA INT/ GEP 32.6 DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	



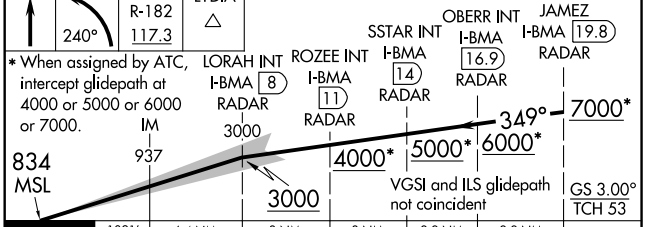
ELEV 841 D



HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

1600	5000	GEP R-182 117.3	LYDIA △
	240°		

* When assigned by ATC, intercept glidepath at 4000 or 5000 or 6000 or 7000.



CATEGORY	A	B	C	D
S-ILS 35		CAT IIIa	RVR 07	
S-ILS 35		CAT IIIb	RVR 06	
S-ILS 35		CAT IIIc	NA	

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NC-1. 03 JUN 2010 to 01 JUL 2010

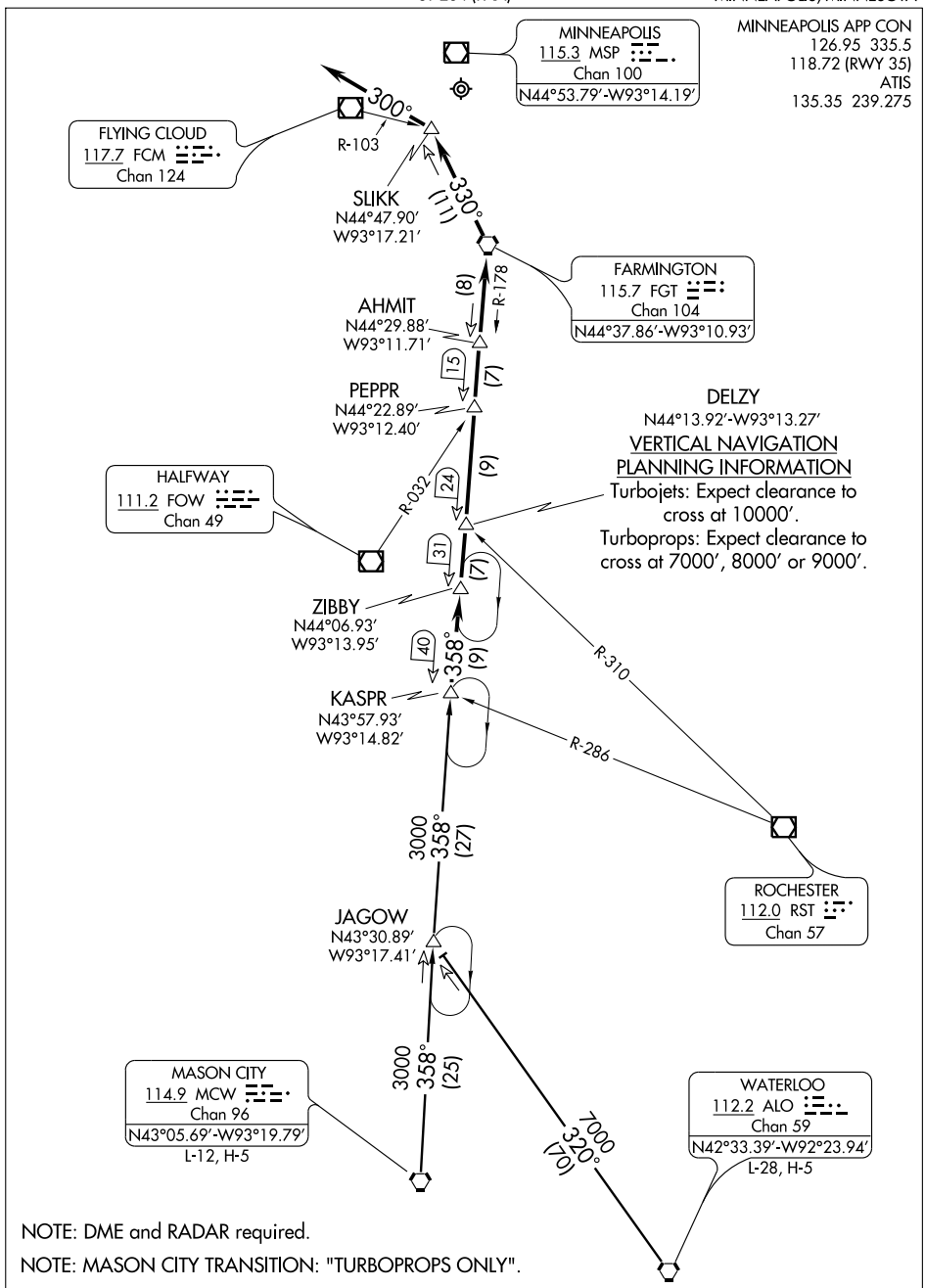
(KASPR.KASPR4) 10098

KASPR FOUR ARRIVAL

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN

ST-264 (FAA)

MINNEAPOLIS, MINNESOTA



NOTE: DME and RADAR required.

NOTE: MASON CITY TRANSITION: "TURBOPROPS ONLY".

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

NC-1, 03 JUN 2010 to 01 JUL 2010

ARRIVAL ROUTE DESCRIPTION

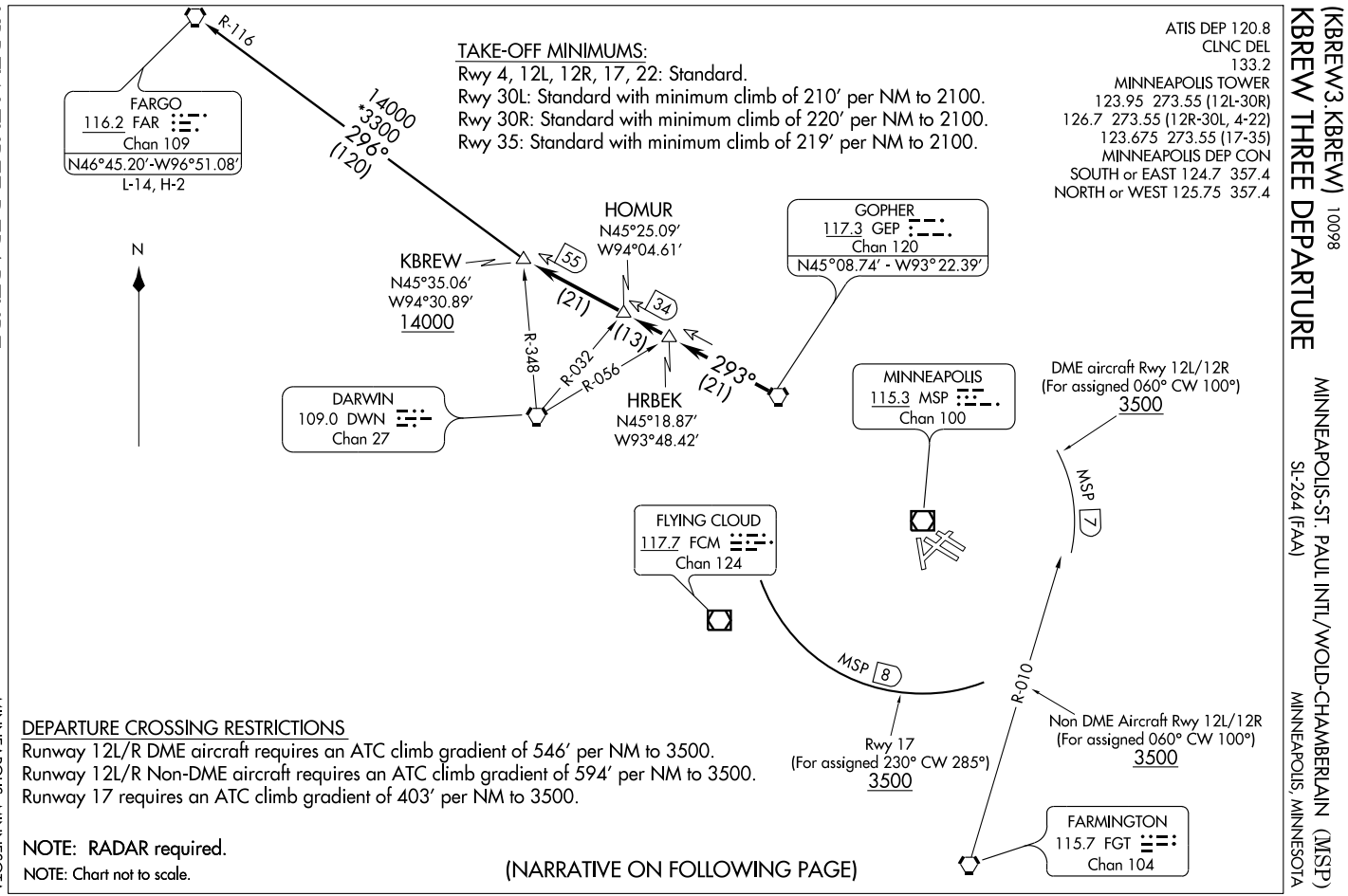
MASON CITY TRANSITION (MCW.KASPR4) (TURBOPROPS ONLY): From over MCW VORTAC via MCW R-358 and FGT R-178 to KASPR INT. Thence....
WATERLOO TRANSITION (ALO.KASPR4): From over ALO VORTAC via ALO R-320 to JACOW INT, then via MCW R-358 and FGT R-178 to KASPR INT. Thence....

....From over KASPR INT via FGT R-178 to FGT VORTAC.

LANDING RUNWAYS 12L/12R:
After FGT VORTAC via FGT R-330 to SLIKK INT thence via 300° heading for radar vectors to final approach course.

LANDING ALL OTHER RUNWAYS:
Via radar vectors to final approach course.

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ATIS DEP 120.8
CLNC DEL
133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4
TAKE-OFF MINIMUMS:
Rwy 4, 12L, 12R, 17, 22: Standard.
Rwy 30L: Standard with minimum climb of 210' per NM to 2100.
Rwy 30R: Standard with minimum climb of 220' per NM to 2100.
Rwy 35: Standard with minimum climb of 219' per NM to 2100.
FARGO
116.2 FAR
Chan 109
N46°45.20'-W96°51.08'
L-14, H-2
R-116
14000
*3300
296°
(120)
N
KBREW
N45°35.06'
W94°30.89'
14000
HOMUR
N45°25.09'
W94°04.61'
55
(21)
34
(13)
R-348
R-032
R-056
293°
(21)
HRBEK
N45°18.87'
W93°48.42'
GOPHER
117.3 GEP
Chan 120
N45°08.74' - W93°22.39'
DARWIN
109.0 DWN
Chan 27
MINNEAPOLIS
115.3 MSP
Chan 100
DME aircraft Rwy 12L/12R
(For assigned 060° CW 100°)
3500
MSP
7
FLYING CLOUD
117.7 FCM
Chan 124
MSP
8
R-010
Non DME Aircraft Rwy 12L/12R
(For assigned 060° CW 100°)
3500
Rwy 17
(For assigned 230° CW 285°)
3500
FARMINGTON
115.7 FGT
Chan 104
DEPARTURE CROSSING RESTRICTIONS
Runway 12L/R DME aircraft requires an ATC climb gradient of 546' per NM to 3500.
Runway 12L/R Non-DME aircraft requires an ATC climb gradient of 594' per NM to 3500.
Runway 17 requires an ATC climb gradient of 403' per NM to 3500.
NOTE: RADAR required.
NOTE: Chart not to scale.
(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly assigned heading for radar vectors to GEP VORTAC then via GEP R-293 to KBREW INT/GEP 55 DME. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude.

DME EQUIPPED AIRCRAFT RWY 12L/12R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

NON DME EQUIPPED AIRCRAFT RWY 12L/12R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross FGT R-010 at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAYS 4, 22, 30L/R, 35: Initially assigned heading, thence

TAKE-OFF RUNWAY 17: For assigned heading 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

FARGO TRANSITION (KBREW3.FAR): From over KBREW INT via FAR R-116 to FAR VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL.
Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL.
Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL.
Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL.
Light poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL.
Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851MSL.
Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′AGL/847′ MSL.
Light pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL.
Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL.
Pipe on building 826′ from DER, 576′ left of centerline, 10′ AGL/825′ MSL.
OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL.
Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline , up to 80′ AGL/919′ MSL.
Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL.
Ground 28′ from DER, 490′ right of centerline, 0′ AGL/844′ MSL.

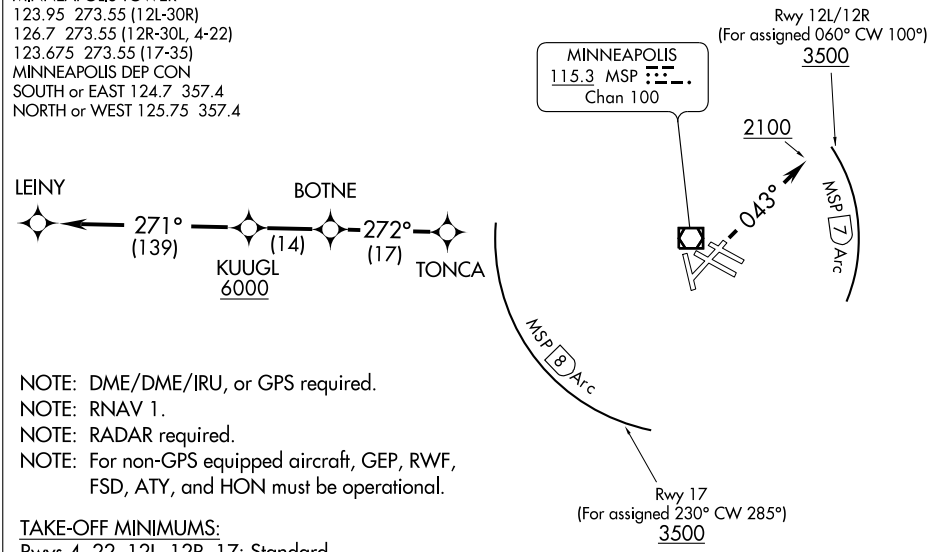
RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL.
Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL.
Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL.
Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL.
Light 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL.
Tree 2619′ from DER, on centerline , 79′ AGL/900′ MSL.

RWY 30R: Building 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL.
Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL.
Light pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL.
Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/ 857′ MSL.
Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/ 914′ MSL.
Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL.
Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL.
Multiple buildings beginning 5.5 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

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ATIS DEP 120.8
CLNC DEL
133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4



NOTE: DME/DME/IRU, or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: For non-GPS equipped aircraft, GEP, RWF, FSD, ATY, and HON must be operational.

TAKE-OFF MINIMUMS:
Rwys 4, 22, 12L, 12R, 17: Standard.
Rwy 35: Standard with minimum climb of 219' per NM to 2100.
Rwy 30L: Standard with minimum climb of 210' per NM to 2100.
Rwy 30R: Standard with minimum climb of 220' per NM to 2100.

DEPARTURE CROSSING RESTRICTIONS:
Runway 12L/R requires an ATC climb gradient of 546' per NM to 3500.
Runway 17 requires an ATC climb gradient of 403' per NM to 3500.

NOTE: Chart not to scale.

(NOTES CONTINUED ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 4: Climb heading 043° to 2100. Thence

TAKE-OFF RUNWAYS 12L/12R: For assigned headings from 060° clockwise to 100°, cross MSP VOR/DME 7 DME Arc at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAY 17: For assigned headings from 230° clockwise to 285°, cross MSP VOR/DME 8 DME Arc at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAYS 22, 35, 30L/R: Climb on assigned heading for radar vectors. Thence

. . . . expect radar vectors to TONCA, then via 272° track to BOTNE, then via 272° track to KUUGL, then via 271° to LEINY. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude until BOTNE. Expect filed altitude/flight level 10 minutes after departure. Cross KUUGL at or above 6000.

NC-1, 03 JUN 2010 to 01 JUL 2010

TAKE-OFF OBSTACLE NOTES:

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL.
Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL.
Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL.
Ant on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL.
LT poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL.
Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL.
Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline, up to 80′ AGL/919′ MSL.
Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL.
Ground 28′ from DER, 490′ right of centerline, 0′ AGL/844′ MSL.

RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL.
Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL.
Wind direction indicator on bldg 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL.
Bldg 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL.
LT 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL.
Tree 2619′ from DER, on centerline, 79′ AGL/900′ MSL.

RWY 30R: Bldg 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL.
Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL.
LT pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL.
Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/857′ MSL.
Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/914′ MSL.
Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL.
Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL.
Multiple buildings beginning 5.5 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

RWY12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL.
Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′ AGL/847′ MSL.
LT pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL.
Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL.
Pipe on bldg, 826′ from DER, 576′ left of centerline, 10′ AGL/825′ MSL.
OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

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LOC I-APL	APP CRS	Rwy Idg	9456
109.3	044°	TDZE	832
		Apt Elev	841

LOC RWY 4

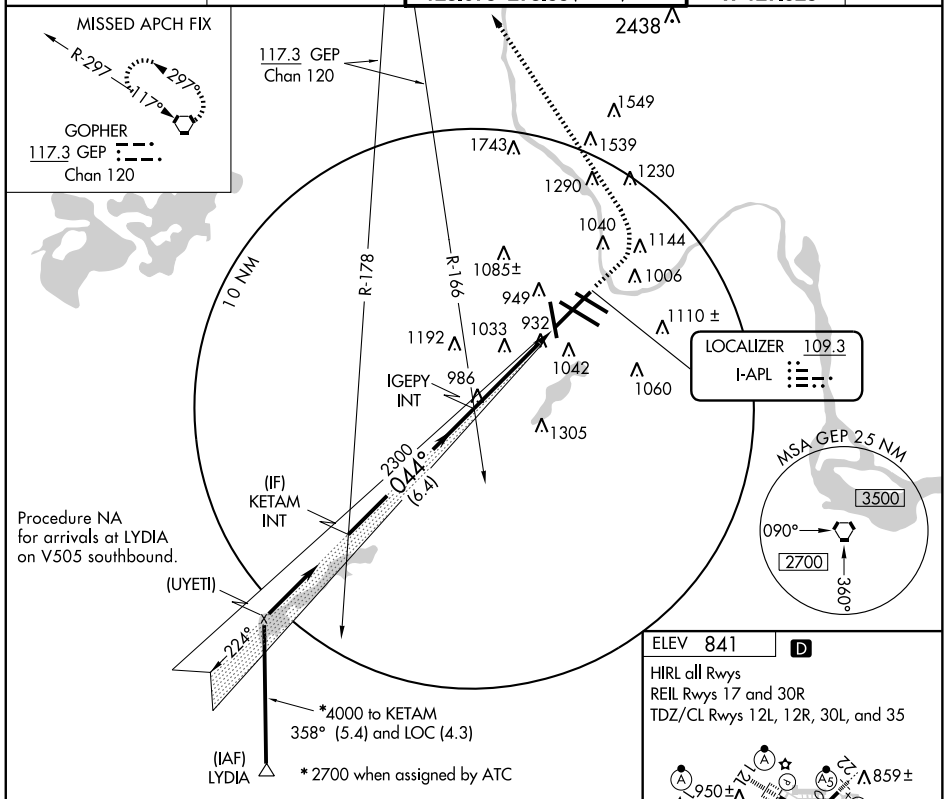
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

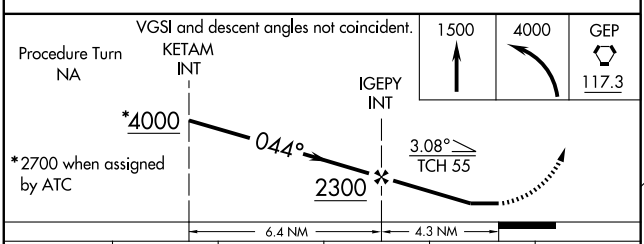
For inoperative MALSR, increase S-4 Cat E visibility to 1¾ mile.

MALSR

MISSED APPROACH: Climb to 1500 then climbing left turn to 4000 direct GEP VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275 DEP 120.8	119.3 335.5	123.95 273.55 (12L-30R) 126.7 273.55 (12R-30L, 4-22) 123.675 273.55 (17-35)	N 121.8 348.6 S 121.9 348.6 W 127.925	133.2

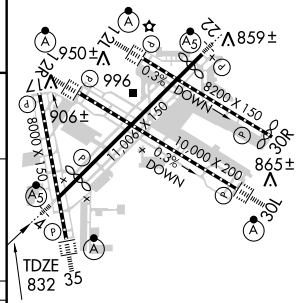




CATEGORY	A	B	C	D	E
S-4	1340/24	508 (500-½)	1340/50	508 (500-1)	1340/60 508 (500-1¼)
CIRCLING	1360-1	519 (600-1)	1360-1½ 519 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)

ELEV 841 D

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35



044° 4.3 NM from FAF

FAF to MAP 4.3 NM					
Knots	60	90	120	150	180
Min:Sec	4:18	2:52	2:09	1:43	1:26

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-TJZ	APP CRS	Rwy Idg	8000
110.95	169°	TDZE	840
Chan 46 (Y)		Apt Elev	841

LOC RWY 17

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 1300 then climbing right turn to 5000 direct FGT VORTAC and hold, continue climb-in-hold to 5000.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

IAF
GOPHER
117.3 GEP
Chan 120

Procedure NA for arrival on GEP VORTAC airway radials 085 CW 182.

4000
131° (5)

(IF)
ARJAE INT
I-TJZ 11.8

10 NM

MSA GEP 25 NM
3500
090°
2700
360°

349°
169°
2800
(6.1)
R-131

CHETZ INT
I-TJZ 5.7

BOBEE INT
I-TJZ 3.6

R-037
R-046

FLYING CLOUD
117.7 FCM
Chan 124

LOCALIZER 110.95
I-TJZ
Chan 46 (Y)

MISSED APCH FIX
FARMINGTON
115.7 FGT
Chan 104
R-178-358°
178°

2438 1549 1539 1743 1290 1230 1030± 1040 1144 1085± 940± 1006 949 1033 932 1110± 1192 1042 1060 1305

ELEV 841 D
169° 5.9 NM from FAF
TDZE 840
950± 859± 996 906± 865±
8200 X 150
8000 X 150
11,006 X 150
10,000 X 200
0.3% DOWN
12 30R 30L 35

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

ARJAE INT
I-TJZ 11.8
4000
169°
Procedure Turn NA
2800
3.05°
TCH 60
CHETZ INT
I-TJZ 5.7
BOBEE INT
I-TJZ 3.6
2100
I-TJZ 0.8
I-TJZ 0.2
6.1 NM 2.1 NM 2.8 NM 0.9

1300	5000	FGT
		115.7

CATEGORY	A	B	C	D
S-17	1200/50 360 (400-1)			1200/60 360 (400-1¼)
CIRCLING	1360-1 519 (600-1)		1360-1½ 519 (600-1½)	1460-2 619 (700-2)

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-SIJ	APP CRS	Rwy Idg	10018
110.5	224°	TDZE	828
		Apt Elev	841

LOC RWY 22

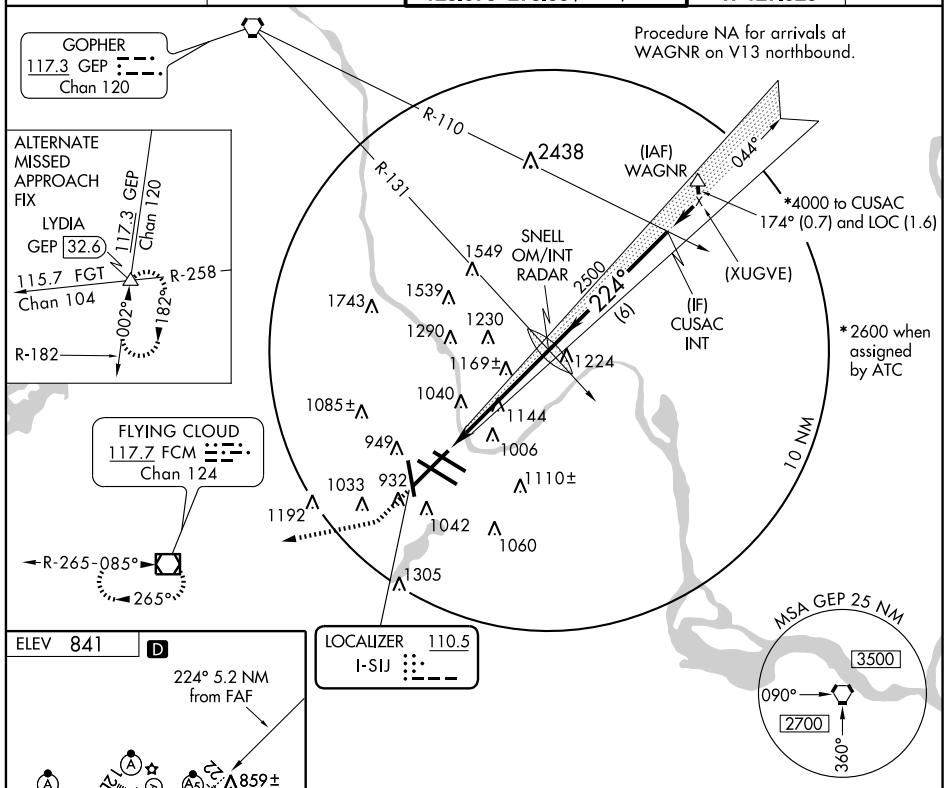
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

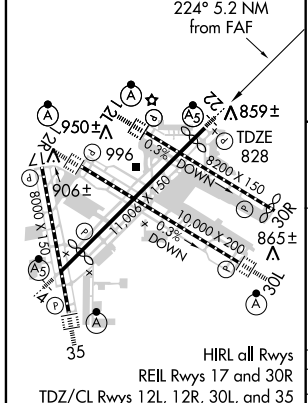
For inoperative MALSR increase S-22 Cat A and B visibility to RVR 5000 and Cat E visibility to 2 miles. Visiblility reduction by helicopters NA.

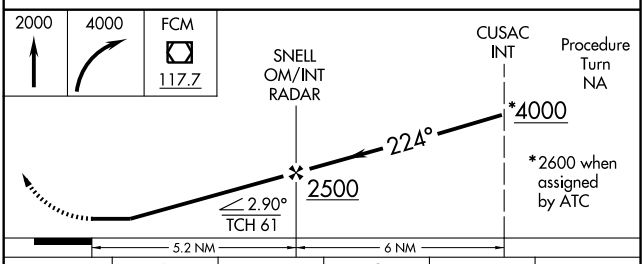
MALSR

MISSED APPROACH: Climb to 2000 then climbing right turn to 4000 direct FCM VOR/DME and hold, continue climb-in-hold to 4000.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	







FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

CATEGORY	A	B	C	D	E
S-22	1420/40 592 (600-¾)		1420/50 592 (600-1)	1420/60 592 (600-1¼)	1420-1½ 592 (600-1½)
CIRCLING	1420-1 579 (600-1)		1420-1½ 579 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)

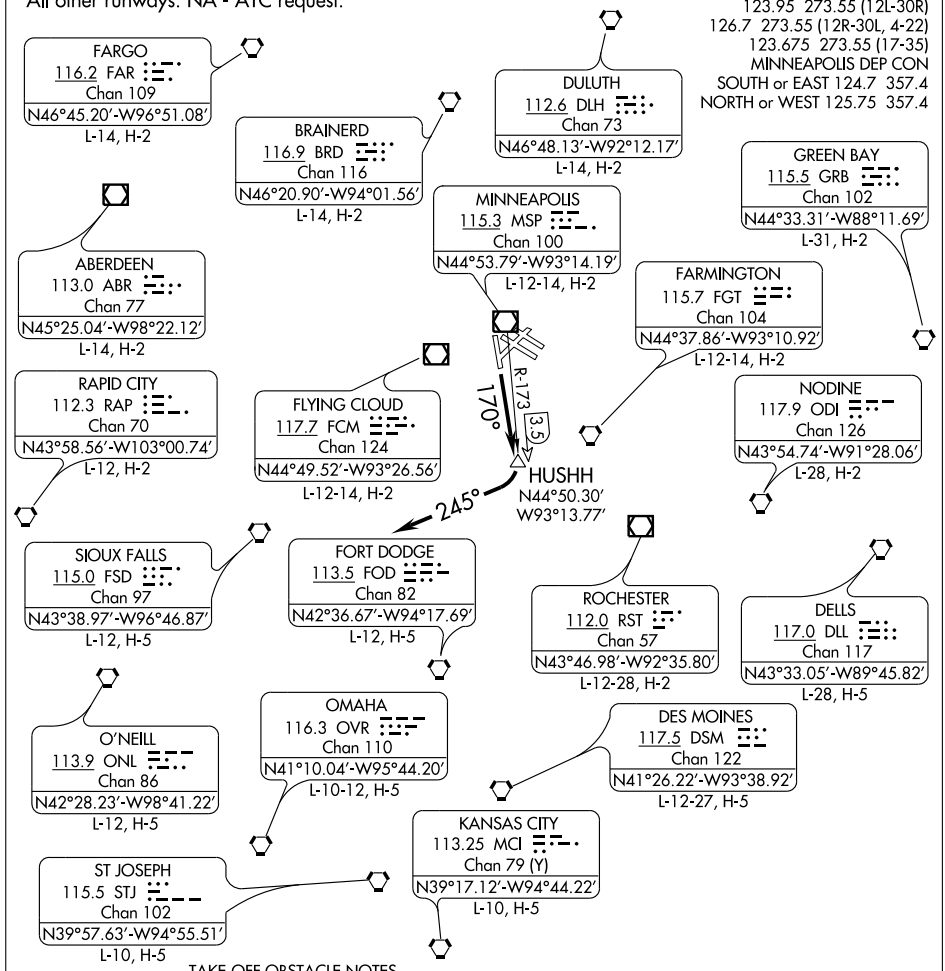
NC-1, 03 JUN 2010 to 01 JUL 2010

MEADOW LAKE ONE DEPARTURE

SL-264 (FAA) MINNEAPOLIS, MINNESOTA

TAKEOFF MINIMUMS:
Rwy 17: Standard with minimum ATC climb of 240′ per mile to 5000.
All other runways: NA - ATC request.

ATIS DEP 120.8
CLNCL DEL 133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4



TAKE-OFF OBSTACLE NOTES

RWY 17: Building 199′ from DER, 496′ left of centerline, 67′ AGL/898′ MSL.
Multiple poles beginning 188′ from DER, 240′ right of centerline, up to 160′ AGL/866′ MSL.
Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL.
Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL.
Building 2336′ from DER, 385′ right of centerline, 154′ AGL/983′ MSL.

NOTE: RADAR required.
NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 17: Climb via 170° to HUSHH/MSP VOR/DME 3.5 DME then right turn via 245° and continue climb (turbojet aircraft maintain 7000 or lower as assigned, all other aircraft maintain 5000 or lower as assigned). Then via vectors to assigned route/fix, expect clearance to assigned altitude/flight level 10 minutes after departure.

NC-1, 03 JUN 2010 to 01 JUL 2010

MINNEAPOLIS FOUR DEPARTURE

ATIS DEP 120.8
CLNC DEL
133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4

FARGO
116.2 FAR
Chan 109
N46°45.20'-W96°51.08'
L-14, H-2

DULUTH
112.6 DLH
Chan 73
N46°48.13'-W92°12.17'
L-14, H-2

BRAINERD
116.9 BRD
Chan 116
N46°20.89'-W94°01.55'
L-14, H-2

GREEN BAY
115.5 GRB
Chan 102
N44°33.31'-W88°11.69'
L-31, H-2

ABERDEEN
113.0 ABR
Chan 77
N45°25.04'-W98°22.12'
L-14, H-2

FLYING CLOUD
117.7 FCM
Chan 124

MINNEAPOLIS
115.3 MSP
Chan 100

MSP 8

MSP 7

DME aircraft Rwy 12L/12R
(For assigned 060° CW 100°)
3500

RAPID CITY
112.3 RAP
Chan 70
N43°58.56'-W103°00.74'
L-12, H-2

Rwy 17
(For assigned 230° CW 285°)
3500

R-010

Non DME Aircraft
Rwy 12L/12R
(For assigned 060° CW 100°)
3500

NODINE
117.9 ODI
Chan 126
N43°54.74'-W91°28.05'
L-28, H-2

FARMINGTON
115.7 FGT
Chan 104

SIOUX FALLS
115.0 FSD
Chan 97
N43°38.97'-W96°46.87'
L-12, H-5

FORT DODGE
113.5 FOD
Chan 82
N42°36.67'-W94°17.69'
L-12, H-5

ROCHESTER
112.0 RST
Chan 57
N43°46.97'-W92°35.82'
L-12-28, H-2

DELLS
117.0 DLL
Chan 117
N43°33.05'-W89°45.82'
L-28, H-5

O'NEILL
113.9 ONL
Chan 86
N42°28.23'-W98°41.22'
L-12, H-5

OMAHA
116.3 OVR
Chan 110
N41°10.04'-W95°44.20'
L-10-12, H-5

DES MOINES
117.5 DSM
Chan 122
N41°26.22'-W93°38.92'
L-12-27, H-5

ST JOSEPH
115.5 STJ
Chan 102
N39°57.63'-W94°55.51'
L-10, H-5

KANSAS CITY
113.25 MCI
Chan 79 (Y)
N39°17.12'-W94°44.22'
L-10, H-5

TAKE-OFF MINIMUMS:
Rwy 4, 12L, 12R, 17, 22: Standard.
Rwy 30L: Standard with minimum climb of 210' per NM to 2100.
Rwy 30R: Standard with minimum climb of 220' per NM to 2100.
Rwy 35: Standard with minimum climb of 219' per NM to 2100.

NOTE: Runway 12L/R DME aircraft minimum ATC climb of 546' per NM to 3500.
NOTE: Runway 12L/R Non-DME aircraft minimum ATC climb of 594' per NM to 3500.
NOTE: Runway 17 minimum ATC climb of 403' per NM to 3500.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: RADAR Required.
NOTE: Chart not to scale.

NC-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTION

ALL AIRCRAFT: Expect radar vectors to join filed/assigned route. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude. Expect clearance to assigned altitude/flight level 10 (ten) minutes after departure.

DME EQUIPPED AIRCRAFT RWY 12L/12R DEPARTURES: For assigned heading from 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.

NON-DME EQUIPPED AIRCRAFT RWY 12L/12R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross FGT R-010 at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.

TAKE-OFF RUNWAY 17: For assigned headings from 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure.

TAKE-OFF OBSTACLE NOTES:

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL.
Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL.
Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL.
Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL.
Light poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL.
Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL.
Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL.
Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL.
Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL.
Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL.
Light 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL.
Tree 2619′ from DER, on centerline, 79′ AGL/900′ MSL.

RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline , up to 80′ AGL/919′ MSL.
Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL.
Ground 28′ from DER, 490′ right of centerline 0′ AGL/844′ MSL.

RWY 30R: Building 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL.
Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL.
Light pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL.
Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/857′ MSL.
Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/914′ MSL.
Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL.
Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL.
Multiple buildings beginning 5.5 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL.
Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′ AGL/847′ MSL.
Light pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL.
Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL.
Pipe on building, 826′ from DER, 576′ left of centerline, 10′ AGL/825′ MSL.
OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

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(ORSKY4.ORSKY) 10098

ORSKY FOUR DEPARTURE

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)
SL-264 (FAA)
MINNEAPOLIS, MINNESOTA

ATIS DEP 120.8
CLNC DEL 133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4

GOPHER
117.3 GEP
Chan 120

Rwy 17
(For assigned 230° CW 285°)
3500
2100

MINNEAPOLIS
115.3 MSP
Chan 100

MSP 8
MSP 7
R-208
R-043°
R-010

DME aircraft
Rwy 12L/12R
(For assigned 060° CW 100°)
3500

FLYING CLOUD
117.7 FCM
Chan 124

JURNY
N44°36.52′
W93°28.34′

208°
20
R-258

Non DME Aircraft Rwy 12L/12R
(For assigned 060° CW 100°)
3500

208°
(13)
33
R-198
121
(15)
48
RUMLE
N44°25.28′
W93°37.47′

FARMINGTON
115.7 FGT
Chan 104

FAIRMONT
110.2 FRM
Chan 39

(37)
85
R-318
R-268

HALFWAY
111.2 FOW
Chan 49

PEDLN
N44°12.16′
W93°48.02′

R-074

ORSKY
N43°40.19′
W94°13.38′

9000
*2800
208°
(26)
111

ONTIJ
N43°17.86′
W94°30.77′
12000 (MRA)

121
12000
*3000
195°
(22)

9000
*2900
176°
(64)

R-278

MASON CITY
114.9 MCW
Chan 96

GOOLD
N42°57.52′
W94°42.85′

MCW
R-257

SIMJI
N42°49.56′
W94°47.52′

(9)
R-312
R-294
R-356

FORT DODGE
113.5 FOD
Chan 82
N42°36.67′-W94°17.69′
L-12, H-5

EYHUX
N42°26.13′
W95°01.16′

(25)
121
83
(39)

DES MOINES
117.5 DSM
Chan 122

R-308

114.8 OBH
R-070
Chan 95

R-281

PUMKN
N41°50.54′
W95°21.52′

(44)
R-015

OMAHA
116.3 OVR
Chan 110
N41°10.04′-W95°44.20′
L-10-12, H-5

DEPARTURE CROSSING RESTRICTIONS

Runway 12L/R DME aircraft requires an ATC climb gradient of 546′ per NM to 3500.
Runway 12L/R Non-DME aircraft requires an ATC climb gradient of 594′ per NM to 3500.
Runway 17 requires an ATC climb gradient of 403′ per NM to 3500.

TAKE-OFF MINIMUMS

Rwy 4, 12L, 12R, 17, 22: Standard.
Rwy 30L: Standard with minimum climb of 210′ per NM to 2100.
Rwy 30R: Standard with minimum climb of 220′ per NM to 2100.
Rwy 35: Standard with minimum climb of 219′ per NM to 2100.

NOTE: RADAR required.
NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

NC-1, 03 JUN 2010 to 01 JUL 2010

ORSKY FOUR DEPARTURE

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly assigned heading for radar vectors to MSP R-208 to ORSKY INT/MSP 85 DME. Turbojet aircraft maintain 7000 or lower assigned altitude. All other aircraft maintain 5000 or lower assigned altitude.

TAKE-OFF RUNWAY 17: For assigned headings from 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence. . . .

DME EQUIPPED AIRCRAFT RWY 12L/R: For assigned headings from 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence. . . .

NON DME EQUIPPED AIRCRAFT RWY 12L/R: For assigned headings from 060° clockwise to 100°, cross FGT R-010 at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence. . . .

TAKE-OFF RUNWAY 4: Climb heading 043° to 2100 before turning left.

TAKE-OFF RUNWAYS 22, 30L/R, 35: Initially assigned heading, Thence. . . .

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

FORT DODGE TRANSITION (ORSKY4.FOD): From over ORSKY INT via FOD R-356 to FOD VORTAC.

OMAHA TRANSITION (ORSKY4.OVR): From over ORSKY INT via MSP R-208 to ONTIJ INT then via OVR R-015 to OVR VORTAC.

TAKE-OFF OBSTACLE NOTES

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL.
Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL.
Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL.
Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL.
Light poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL.
Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.
Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL.
Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′ AGL/847′ MSL.
Light pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL.
Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL.
Pipe on building, 826′ from DER, 576′ left of centerline, 10′ AGL/825′ MSL.
OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL.
Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL.
Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL.
Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL
Light 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL.
Tree 2619′ from DER, on centerline, 79′ AGL/900′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL.

RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline , up to 80′ AGL/919′ MSL.
Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL.
Ground 28′ from DER, 490′ right of centerline 0′ AGL/844′ MSL.

RWY 30R: Building 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL.
Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL.
Light pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL.
Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/857′ MSL.
Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/914′ MSL.
Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL.
Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL.
Multiple buildings beginning 5.5 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

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APP CRS	Rwy Idg	9456
043°	TDZE	832
	Apt Elev	841

RNAV (GPS) RWY 4

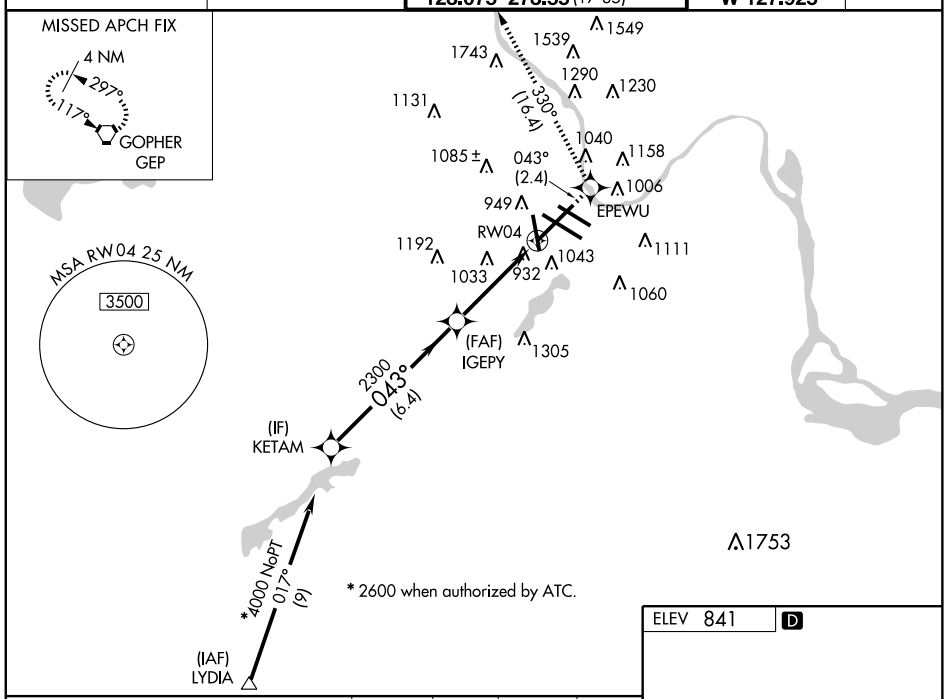
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

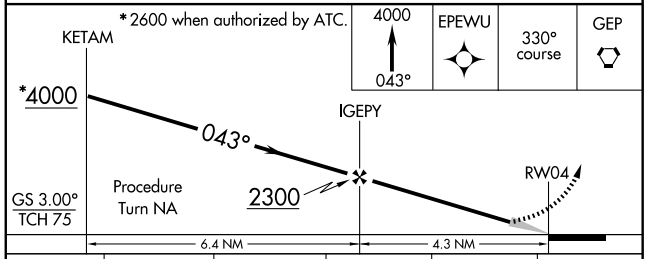
T A For inoperative MALSR, increase LNAV/VNAV and LNAV Cat. E visibility to 1¾.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F).
DME/DME RNP- 0.3 NA.

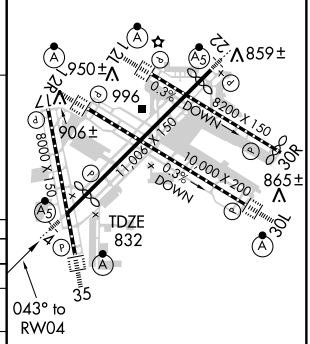
MALSR (A5)

MISSED APPROACH: Climb to 4000 via 043° course to EPEWU WP then via 330° course to GEP VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	







CATEGORY	A	B	C	D	E
GLS PA DA	NA				
LNAV/VNAV DA	1296/50 464 (500-1)				
LNAV MDA	1300/24 468 (500-½)		1300/40 468 (500-¾)	1300/50 468 (500-1)	1300/60 468 (500-1¼)
CIRCLING	1360-1 519 (600-1)			1460-2 619 (700-2)	1660-3 819 (900-3)

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS		
CH **45525**	**119°**	Rwy Idg	**7620**
W12B		TDZE	**839**
		Apt Elev	**841**

RNAV (GPS) RWY 12L

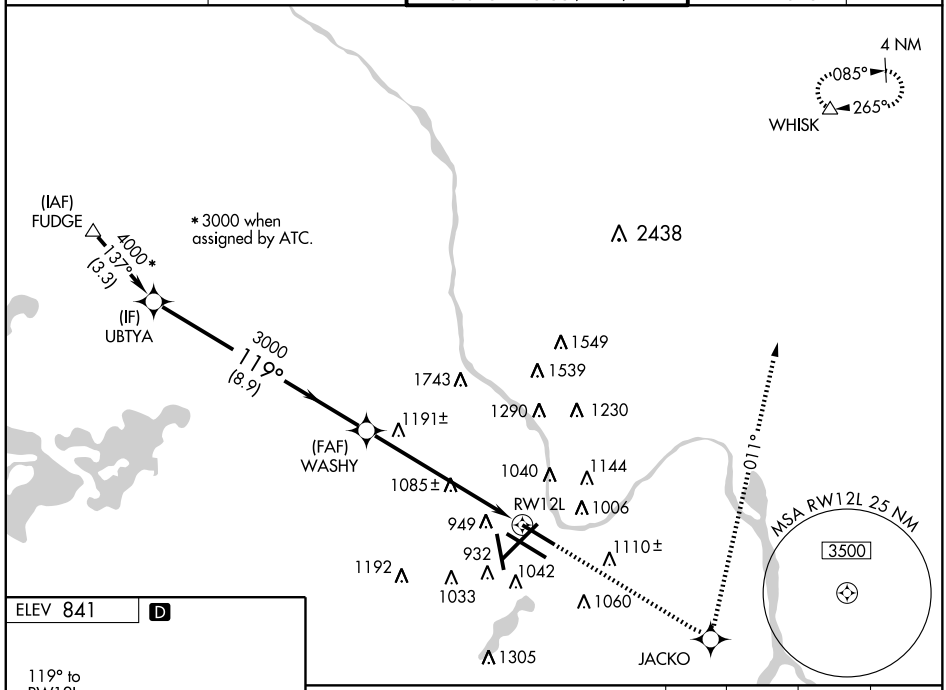
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

For inoperative ALSF, increase LPV Cat E visibility to RVR 4000, LNAV/VNAV Cat E visibility to 1½ mile and LNAV Cat E visibility to 2½ mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP- 0.3 NA.

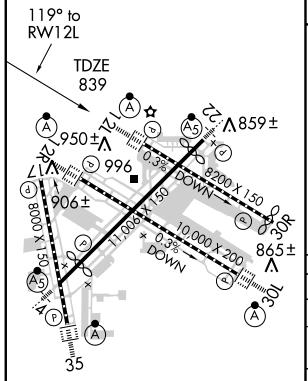
ALSF-2

MISSED APPROACH: Climb to 4000 direct JACKO and left turn via track 011° to WHISK and hold.

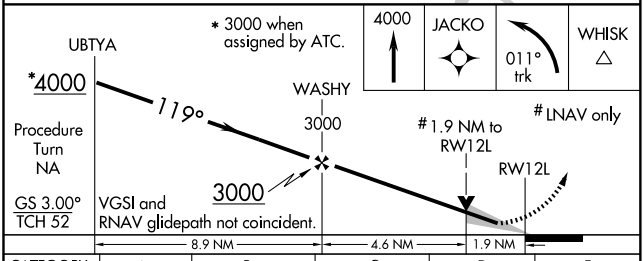
ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR **135.35 239.275**	**119.3 335.5**	**123.95 273.55** (12L-30R)	**N 121.8 348.6**	**133.2**
DEP **120.8**		**126.7 273.55** (12R-30L, 4-22)	**S 121.9 348.6**	
		123.675 273.55 (17-35)	**W 127.925**	



ELEV 841 D



HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35



CATEGORY	A	B	C	D	E
LPV DA	1039/24 200 (200-½)				
LNAV/VNAV DA	1248/50 409 (500-1)				
LNAV MDA	1520/24 681 (700-½)		1520-1½ 681 (700-1½)	1520-1¾ 681 (700-1¾)	1520-2 681 (700-2)
CIRCLING	1520-1 679 (700-1)		1520-2 679 (700-2)	1520-2¼ 679 (700-2¼)	1660-3 819 (900-3)

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	10000
CH 50125	119°	TDZE	841
W12A		Apt Elev	841

RNAV (GPS) RWY 12R

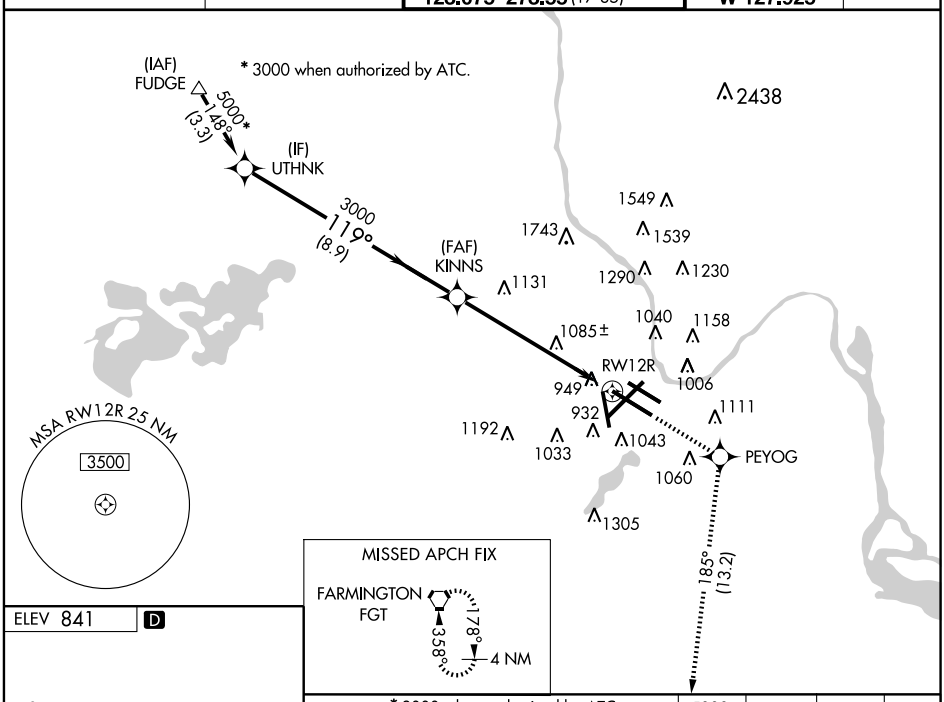
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

DME/DME RNP- 0.3 NA.
Baro-VNAV NA below -16°C (4°F).
For inoperative ALSF, increase LPV all Cats visibility to RVR 5000, increase LNAV/VNAV Cat E visibility to 1½, increase LNAV Cat E visibility to 2¼.

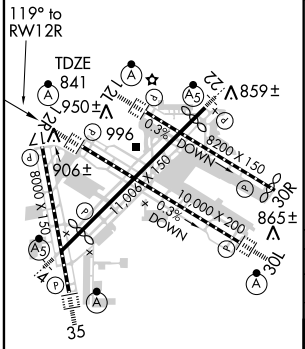
ALSF-2

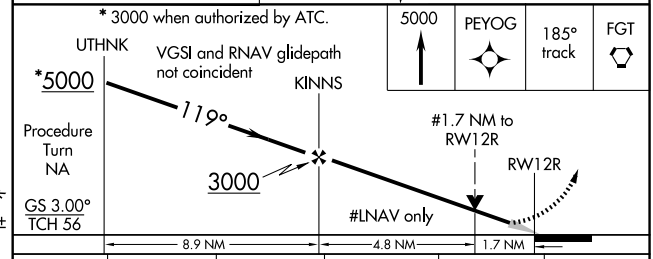
MISSED APPROACH: Climb to 5000 direct PEYOG and via 185° track to FGT VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	



ELEV 841 D





CATEGORY	A	B	C	D	E
LPV DA	1119/24 278 (300-½)				
LNAV/VNAV DA	1294/50 453 (500-1)				
LNAV MDA	1460/24 619 (700-½)		1460/60 619 (700-1¼)	1460-1½ 619 (700-1½)	1460-1¾ 619 (700-1¾)
CIRCLING	1460-1½ 619 (700-1½)		1460-1¾ 619 (700-1¾)	1460-2 619 (700-2)	1660-3 819 (900-3)

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	10018
CH 60927	223°	TDZE	828
W22A		Apt Elev	841

RNAV (GPS) RWY 22

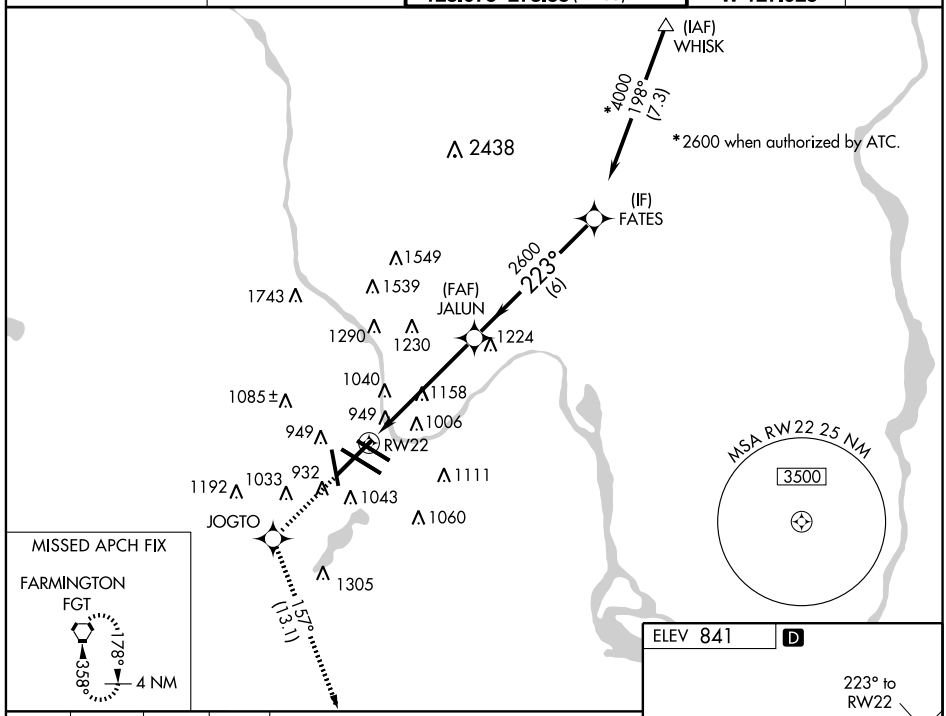
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

DME/DME RNP- 0.3 NA.
Baro-VNAV NA below -16°C (4°F).
For inoperative MALSR, increase LPV all CATS visibility to RVR 6000, increase LNAV CAT A and B visibility to RVR 5000.

MALSR

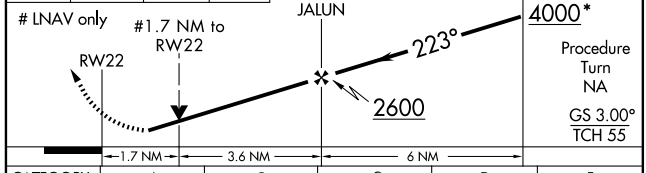
MISSED APPROACH: Climb to 4000 direct JOGTO and via 157° track to FGT VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	



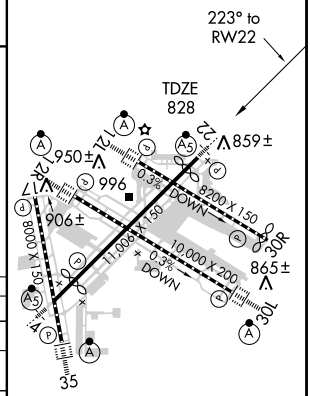
4000	JOGTO	157° track	FGT

*2600 when authorized by ATC.
VGSI and RNAV glidepath not coincident.



CATEGORY	A	B	C	D	E
LPV DA	1190/40 362 (400-¾)				
LNAV/VNAV DA	1227/40 399 (400-¾)				1227/50 399 (400-1)
LNAV MDA	1420/40 592 (600-¾)		1420/50 592 (600-1)	1420/60 592 (600-1¼)	1420-1½ 592 (600-1½)
CIRCLING	1420-1¼ 579 (600-1¼)		1420-1½ 579 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)

ELEV 841 D



HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

NC-1. 03 JUN 2010 to 01 JUL 2010

RNAV (GPS) RWY 30L

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

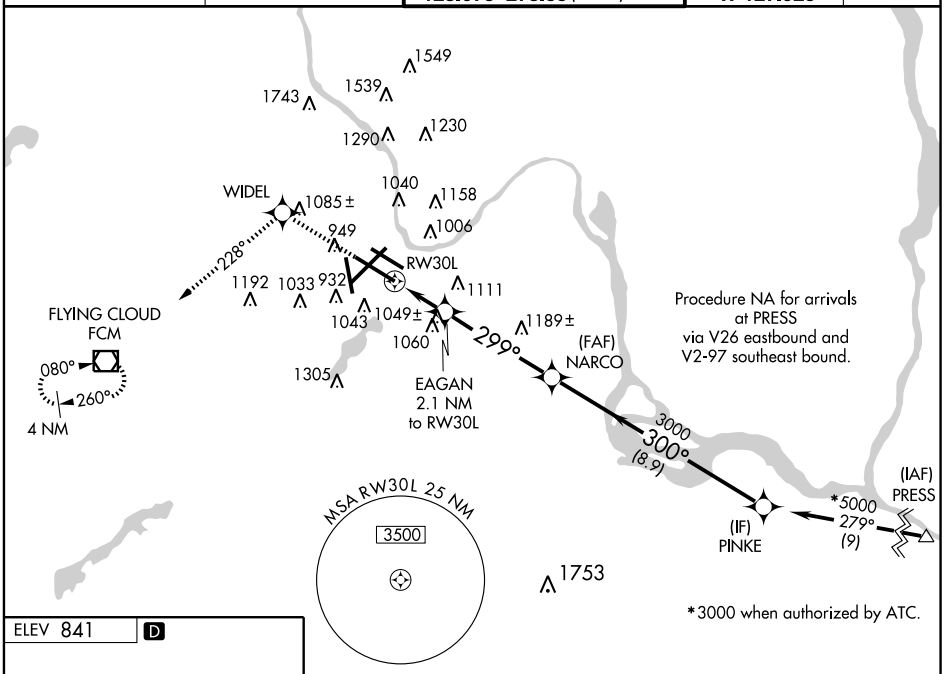
WAAS	APP CRS	Rwy Idg	10000
CH 56225	299°	TDZE	823
W30A		Apt Elev	841

T A For inoperative ALSF, increase LPV all Cats visibility to RVR 4000, increase LNAV/VNAV Cat E visibility to 2, increase LNAV Cat E visibility to 2. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 47°C (116°F). DME/DME RNP-0.3 NA.

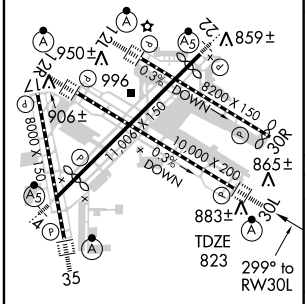
ALSF-2

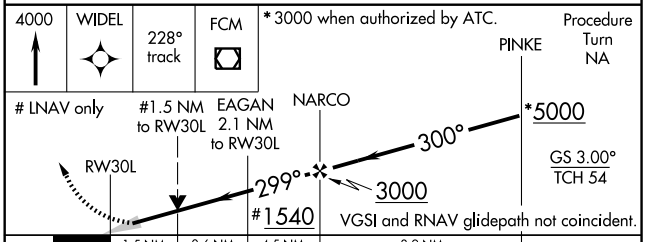
MISSED APPROACH: Climb to 4000 direct WIDEL and via 228° track to FCM VOR/DME and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	



ELEV 841 D





CATEGORY	A	B	C	D	E
LPV DA	1023/18 200 (200-½)				
LNAV/VNAV DA	1368-1½ 545 (600-1½)				
LNAV MDA	1360/24 537 (600-½)		1360/50 537 (600-1)	1360/60 537 (600-1¼)	1360-1½ 537 (600-1½)
CIRCLING	1360-1 519 (600-1)		1360-1½ 519 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	8000
CH 60925	299°	TDZE	823
W30B		Apt Elev	841

RNAV (GPS) RWY 30R

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

DME/DME RNP- 0.3 NA.
Baro-VNAV NA below -16°C (4°F).

MISSED APPROACH: Climb to 5000 direct FASRO and via 343° track to GEP VORTAC and hold.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

Procedure NA for arrivals at PRESS via V26 eastbound, V2-97 southeastbound.

MISSED APCH FIX
4 NM
297°
117°
GOPHER
GEP

343° (14)
FASRO
1085±
949
1192
1033
932
1043
RW30R
1060
1006
1002±
1111
1158
1040
1290
1230
1743
1539
1549
1305
1181±
299°
(FAF)
JACKO
3000
300°
(8.9)
(IF)
WULAM
4000*
282°
(8.8)
(IAF)
PRESS
*3000 when authorized by ATC.
1753

MSA RW30R 25 NM
3500

5000 | FASRO | 343° track | GEP

* 3000 when authorized by ATC.
VGSI and RNAV glidepath not coincident

LNAV only

#1.6 NM to RW30R
RW30R
299°
JACKO
300°
3000
WULAM
4000*
Procedure Turn NA
GS 3.00°
TCH 55
1.6 NM | 5 NM | 8.9 NM

ELEV 841 D

859±
950±
996
906±
TDZE 823
RW30R
865±
30L
299° to RW30R
35
9200 X 150
8000 X 150
11,000 X 200
10,000 X 200
0.3% DOWN

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35

CATEGORY	A	B	C	D	E
LPV DA	1073/40 250 (300-¾)				
LNAV/VNAV DA	1294-1¾ 471 (500-1¾)				
LNAV MDA	1400/50 577 (600-1)		1400-1½ 577 (600-1½)	1400-1¾ 577 (600-1¾)	1400-2 577 (600-2)
CIRCLING	1400-1 559 (600-1)		1400-1½ 559 (600-1½)	1460-2 619 (700-2)	1660-3 819 (900-3)

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	8000
CH 90128	348°	TDZE	834
W35A		Apt Elev	841

RNAV (GPS) Z RWY 35

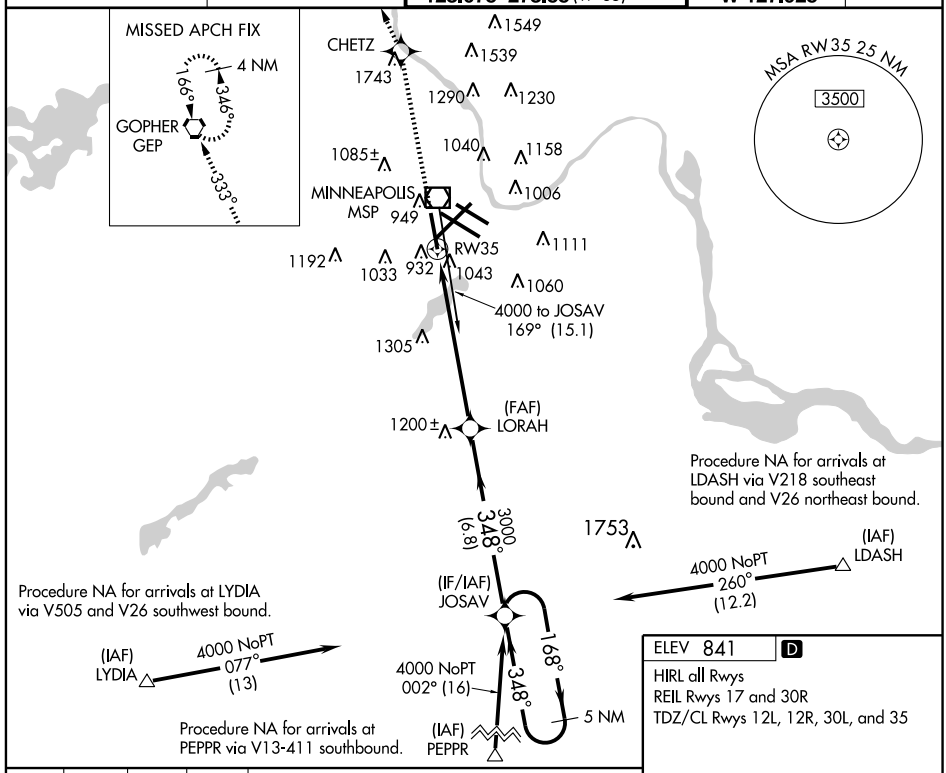
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

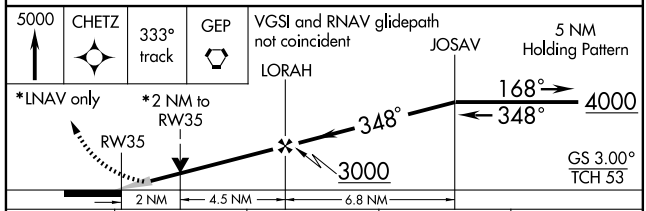
For inoperative ALSF increase LPV visibility to RVR 4000.
Baro-VNAV NA below -13°C (8°F).
DME/DME RNP-0.3 NA

ALSF-2

MISSED APPROACH: Climb to 5000 direct CHETZ and via 333° track to GOPHER VORTAC and hold, continue climb-in-hold to 5000.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	

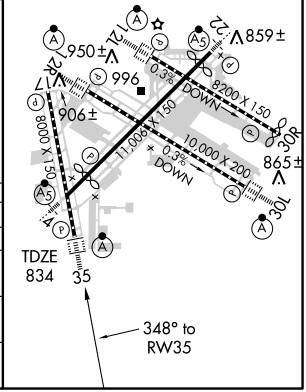




CATEGORY	A	B	C	D
LPV DA	1084/24 250 (300-½)			
LNAV/VNAV DA	1341/60 507 (500-1¼)			
LNAV MDA	1540/24 706 (700-½)		1540-1½ 706 (700-1½)	1540-1¾ 706 (700-1¾)
CIRCLING	1540-1 699 (700-1)		1540-2 699 (700-2)	1540-2¼ 699 (700-2¼)

ELEV 841 D

HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35



NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	8000
348°	TDZE	834
	Apt Elev	841

RNAV (RNP) Y RWY 35

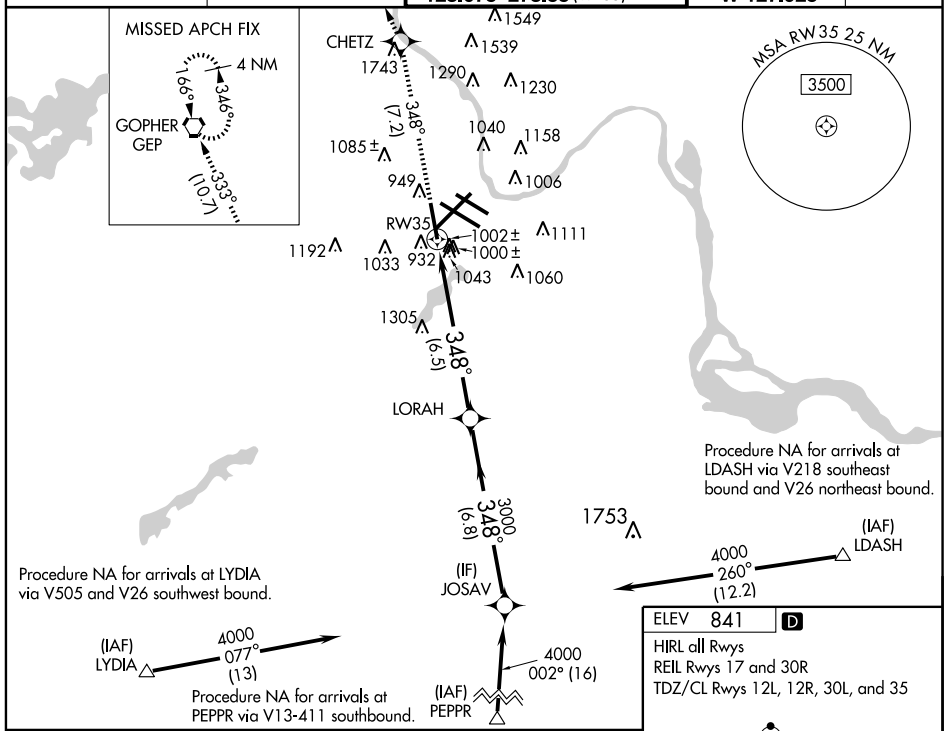
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

T Visibility reduction by helicopters NA.
NA When VGSI inop, procedure NA at night. GPS required.
For uncompensated Baro-VNAV systems, procedure NA below -13°C (8°F) or above 47°C (117°F).
For inoperative ALSF, increase RNP 0.19 visibility to 1½ and RNP 0.30 visibility to 1¾.

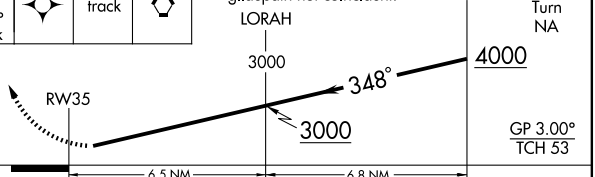
ALSF-2 (A)

MISSED APPROACH: Climb to 5000 via 348° track to CHETZ and via 333° track to GEP VORTAC and hold, continue climb-in-hold to 5000.

ATIS	MINNEAPOLIS APP CON	MINNEAPOLIS TOWER	GND CON	CLNC DEL
ARR 135.35 239.275	119.3 335.5	123.95 273.55 (12L-30R)	N 121.8 348.6	133.2
DEP 120.8		126.7 273.55 (12R-30L, 4-22)	S 121.9 348.6	
		123.675 273.55 (17-35)	W 127.925	



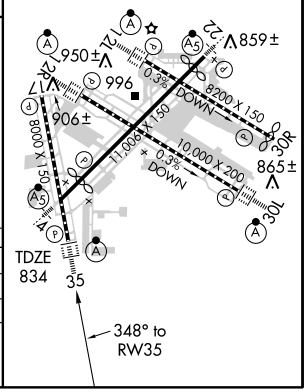
5000 ↑ 348° track	CHETZ	333° track	GEP



CATEGORY	A	B	C	D
RNP 0.19 DA		1286/50	452 (500-1)	
RNP 0.30 DA		1329/60	495 (500-1¼)	

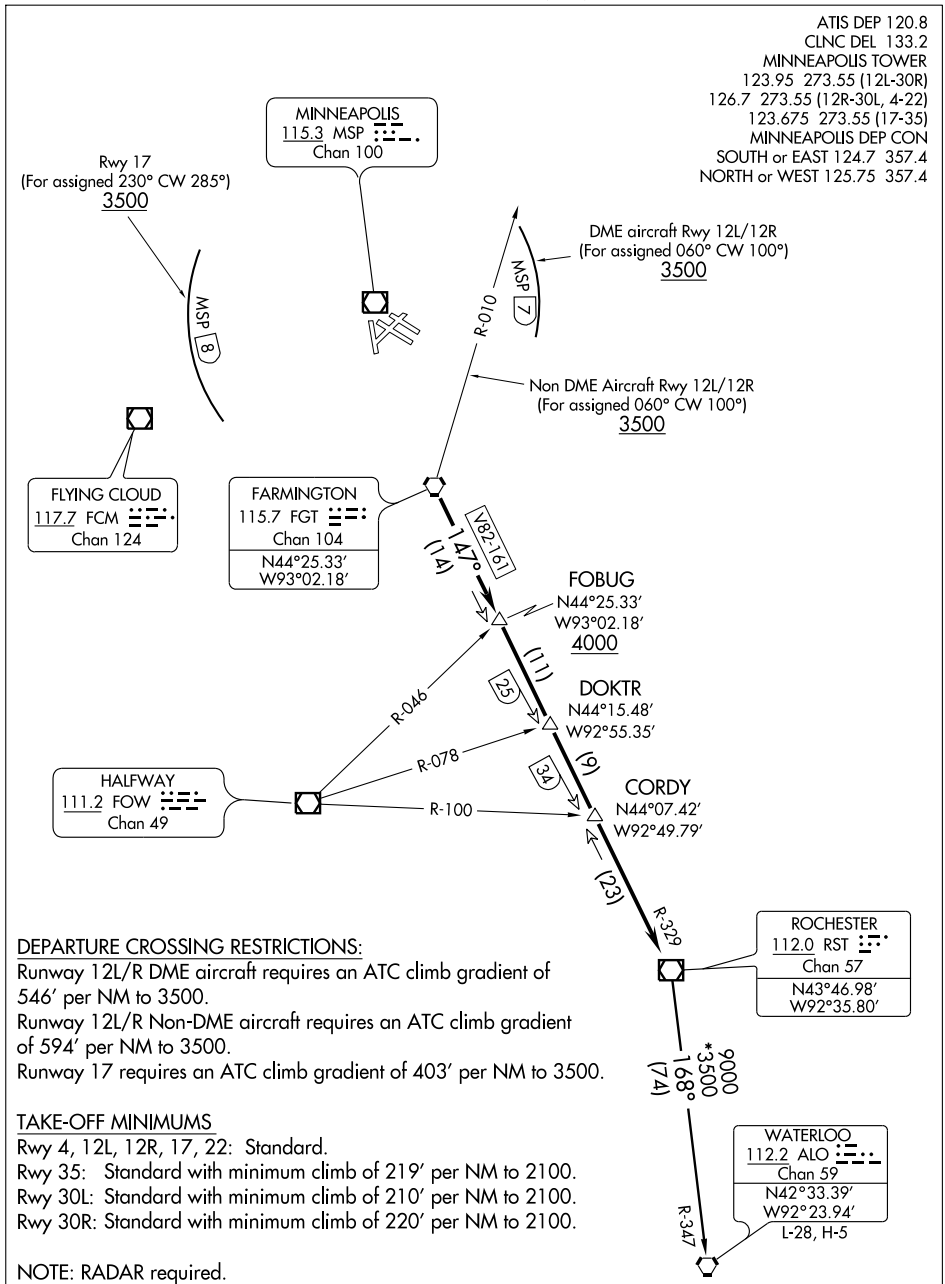
SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

ELEV 841 D
HIRL all Rwys
REIL Rwys 17 and 30R
TDZ/CL Rwys 12L, 12R, 30L, and 35



NC-1, 03 JUN 2010 to 01 JUL 2010

ROCHESTER FOUR DEPARTURE



DEPARTURE CROSSING RESTRICTIONS:
Runway 12L/R DME aircraft requires an ATC climb gradient of 546′ per NM to 3500.
Runway 12L/R Non-DME aircraft requires an ATC climb gradient of 594′ per NM to 3500.
Runway 17 requires an ATC climb gradient of 403′ per NM to 3500.

TAKE-OFF MINIMUMS
Rwy 4, 12L, 12R, 17, 22: Standard.
Rwy 35: Standard with minimum climb of 219′ per NM to 2100.
Rwy 30L: Standard with minimum climb of 210′ per NM to 2100.
Rwy 30R: Standard with minimum climb of 220′ per NM to 2100.

NOTE: RADAR required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

NC-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF ALL RUNWAYS: Fly assigned heading for radar vectors to FGT VORTAC then via FGT R-147 and RST R-329 to RST VOR/DME. Cross FOBUG INT/FGT 14 DME at or above 4000. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude.

DME EQUIPPED AIRCRAFT RWY 12L/12R: For assigned headings from 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence. . . .

TAKE-OFF RUNWAY 17: For assigned headings from 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence. . . .

NON DME EQUIPPED AIRCRAFT RWY 12L/12R: For assigned headings from 060° clockwise to 100°, cross FGT R-010 at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence. . . .

TAKE-OFF RUNWAYS 4, 22, 30L/30R, 35: Initially assigned heading. Thence. . . .

. . . .via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

WATERLOO TRANSITION (RST4.ALO): From over RST VOR/DME via RST R-168 and ALO R-347 to ALO VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL. Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL. Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL. Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL. Light poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL. Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL. Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′AGL/847′ MSL. Light pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL. Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL. Pipe on building 826′ from DER, 576′ left of centerline, 10′ AGL/825′ AGL. OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL. Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL. Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL. Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL. Light 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL. Tree 2619′ from DER, on centerline , 79′ AGL/900′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL. Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline , up to 80′ AGL/919′ MSL. Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL. Ground 28′ from DER, 490′ right of centerline, 0′ AGL/844′ MSL.

RWY 30R: Building 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL. Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL. Light pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL. Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/ 857′ MSL. Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/ 914′ MSL. Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL. Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL.

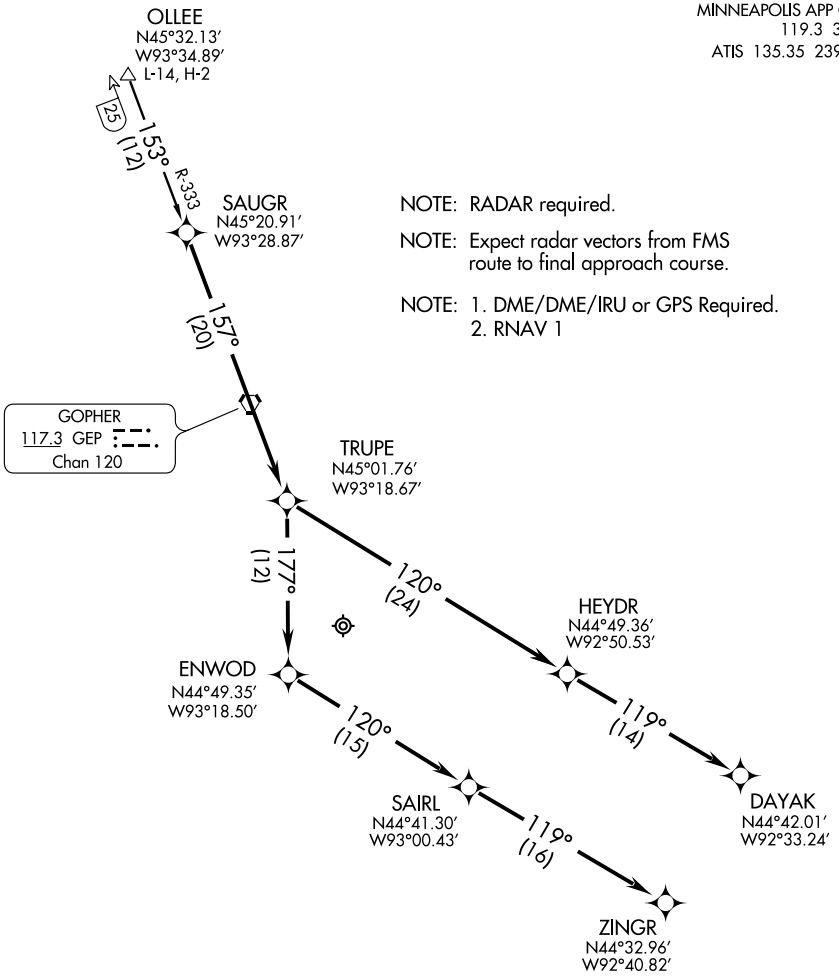
RWY 35: Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL. Multiple buildings beginning 5.5 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

SAUGR ONE (FMS) ARRIVAL

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN
ST-264 (FAA) MINNEAPOLIS, MINNESOTA

MINNEAPOLIS APP CON
119.3 335.5
ATIS 135.35 239.275



NOTE: RADAR required.

NOTE: Expect radar vectors from FMS route to final approach course.

NOTE: 1. DME/DME/IRU or GPS Required.
2. RNAV 1

NOTE: Chart not to scale.

Via the GOPHER STAR from over SAUGR WP. Thence

FOR RUNWAY 30L ARRIVALS: To TRUPE WP to ENWOD WP to SAIRL WP to ZINGR WP.

FOR RUNWAY 30R ARRIVALS: To TRUPE WP to HEYDR WP to DAYAK WP.

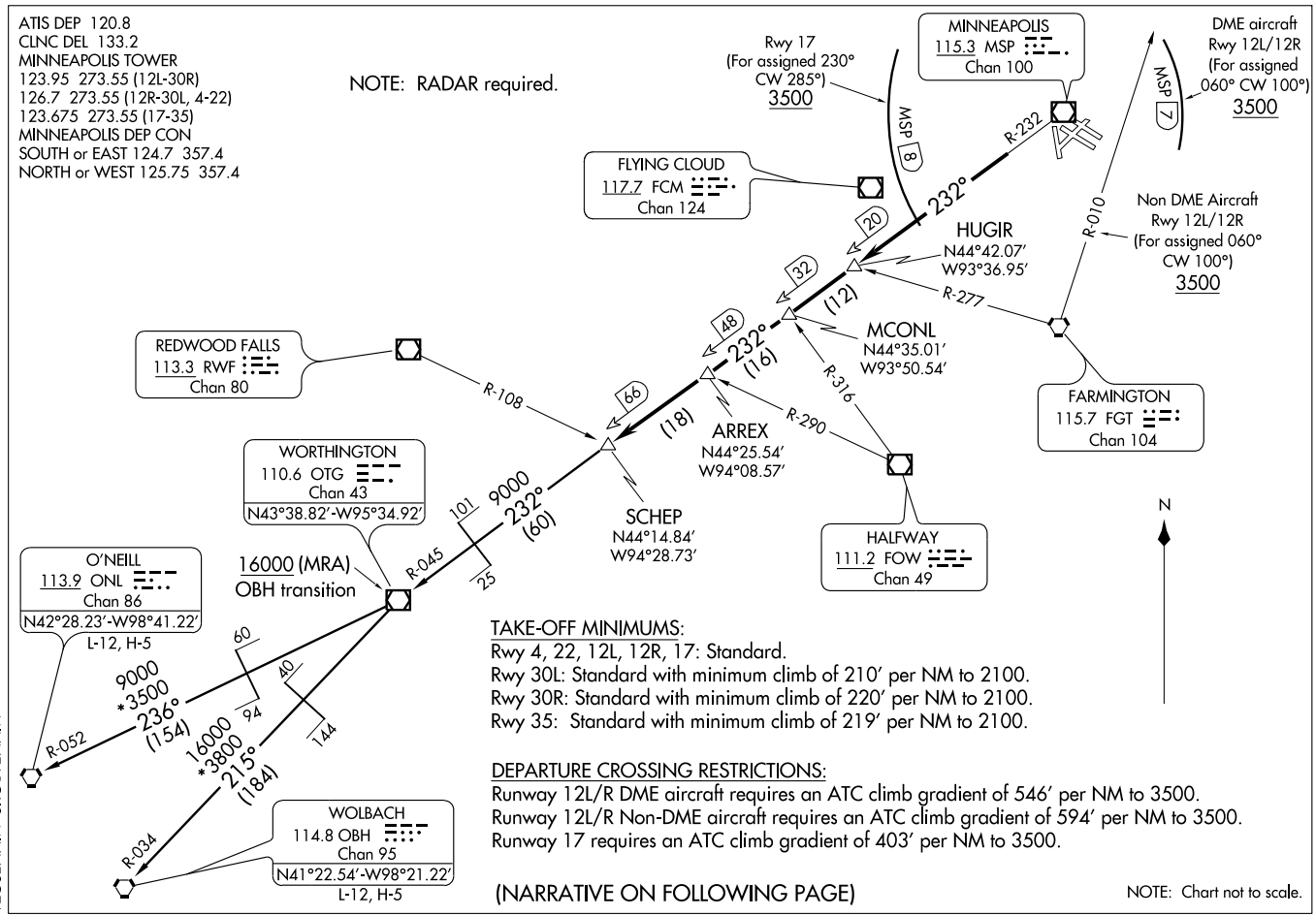
NC-1, 03 JUN 2010 to 01 JUL 2010

SCHEP THREE DEPARTURE

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)
SL-264 (FAA)
MINNEAPOLIS, MINNESOTA

ATIS DEP 120.8
CLNC DEL 133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4

NOTE: RADAR required.



TAKE-OFF MINIMUMS:
Rwy 4, 22, 12L, 12R, 17: Standard.
Rwy 30L: Standard with minimum climb of 210′ per NM to 2100.
Rwy 30R: Standard with minimum climb of 220′ per NM to 2100.
Rwy 35: Standard with minimum climb of 219′ per NM to 2100.

DEPARTURE CROSSING RESTRICTIONS:
Runway 12L/R DME aircraft requires an ATC climb gradient of 546′ per NM to 3500.
Runway 12L/R Non-DME aircraft requires an ATC climb gradient of 594′ per NM to 3500.
Runway 17 requires an ATC climb gradient of 403′ per NM to 3500.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly assigned heading for radar vectors to MSP R-232 to SCHEP INT/MSP 66 DME. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude.

DME EQUIPPED AIRCRAFT RWY 12L/12R: For assigned headings from 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAY 17: For assigned headings from 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

NON DME EQUIPPED AIRCRAFT RWY 12L/12R: For assigned headings from 060° clockwise to 100°, cross FGT R-010 at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAYS 4, 22, 30L/30R, 35: Initially assigned heading, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

O'NEILL TRANSITION (SCHEP3.ONL): From over SCHEP INT via OTG R-045 to OTG VOR/DME. Then via OTG R-236 and ONL R-052 to ONL VORTAC.

WOLBACH TRANSITION (SCHEP3.OBH): From over SCHEP INT via OTG R-045 to OTG VOR/DME. Then via OTG R-215 and OBH R-034 to OBH VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 4: Multiple trees beginning 800' from DER, 264' left of centerline, up to 75' AGL/921' MSL. Rod on building 2528' from DER, 1175' left of centerline, 78' AGL/922' MSL. Fence 803' from DER, 585' left of centerline, 15' AGL/860' MSL. Antenna on OL building 456' from DER, 319' left of centerline, 13' AGL/850' MSL. Light poles 1932' from DER, 718' left of centerline, 45' AGL/885' MSL. Stack 4535' from DER, 481' left of centerline, 139' AGL/949' MSL.

RWY 12R: Multiple trees beginning 1477' from DER, 407' left of centerline, up to 86' AGL/851' MSL. Multiple trees beginning 1426' from DER, 124' right of centerline, up to 111'AGL/847' MSL. Light pole 1408' from DER, 746' right of centerline, 85' AGL/843' MSL. Radar reflector 983' from DER, 32' left of centerline, 15' AGL/ 829 MSL. Pipe on building 826' from DER, 576' left of centerline, 10' AGL/825' AGL. OL on LOC 766' from DER, on centerline, 7' AGL/821' MSL.

RWY 17: Antenna 1272' from DER, 562' right of centerline, 57' AGL/891' MSL. Pole 409' from DER, 530' right of centerline, 29' AGL/866' MSL. Wind direction indicator on building 2619' from DER, 881' left of centerline, 97' AGL/918' MSL. Building 2619' from DER, 859' left of centerline, 84' AGL/905' MSL. Light 1176' from DER, 291' right of centerline, 11' AGL/875' MSL. Tree 2619' from DER, on centerline , 79' AGL/900' MSL.

RWY 22: Tree 2906' from DER, 833' right of centerline, 94' AGL/934' MSL. Hopper 1717' from DER, 456' left of centerline, 48' AGL/888' MSL.

RWY 30L: Multiple trees beginning 1113' from DER, 701' left of centerline , up to 80' AGL/919' MSL. Tree 1230' from DER, 633' right of centerline, 30' AGL/877' MSL. Ground 28' from DER, 490' right of centerline, 0' AGL/844' MSL.

RWY 30R: Building 1056' from DER, 198' left of centerline, 13' AGL/853' MSL. Multiple trees beginning 3010' from DER, 334' left of centerline, up to 94' AGL/940' MSL. Light pole 1849' from DER, 698' right of centerline, 17' AGL/871' MSL. Fence 1327' from DER, 667' right of centerline, 8' AGL/ 857' MSL. Tree 3703' from DER, 350' right of centerline, 67' AGL/ 914' MSL. Rod on pole 3143' from DER, 47' right of centerline, 38' AGL/898' MSL.

RWY 35: Tree 175' from DER, 398' right of centerline, 73' AGL/883' MSL. Multiple trees beginning 1989' from DER, 351' left of centerline, up to 65' AGL/902' MSL. Multiple buildings beginning 5.5 NM from DER, 1787' left of centerline, up to 811' AGL/1743' MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

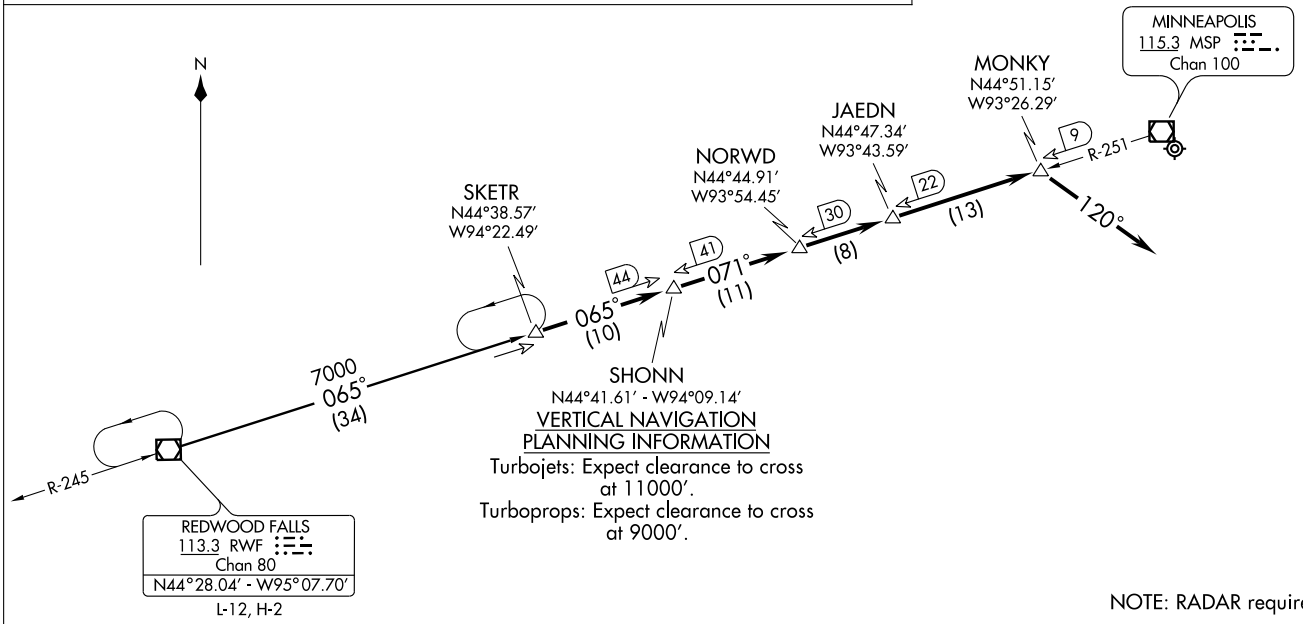
REDWOOD FALLS TRANSITION (RWF.SKETR3): From over RWF VOR/DME via RWF R-065 to SKETR/34 DME. Thence....

....Via the RWF R-065 to SKETR/34 DME, then to SHONN/44 DME, then via MSP R-251 to NORWD/30 DME, then to JAEDN/22 DME, then to MONKY/9 DME. Thence....

LANDING MSP RUNWAYS 30L/R, 35: Via 120° heading for radar vectors to final approach course.

ALL OTHER RUNWAYS: Via radar vectors to final approach course.

MINNEAPOLIS APP CON
119.3 335.5
ATIS 135.35 239.275



VERTICAL NAVIGATION PLANNING INFORMATION

Turbojets: Expect clearance to cross at 11000′.

Turboprops: Expect clearance to cross at 9000′.

NOTE: RADAR required.

NOTE: DME required.

NOTE: Chart not to scale.

(SKETR.SKETR3) 08157 SKETR THREE ARRIVAL

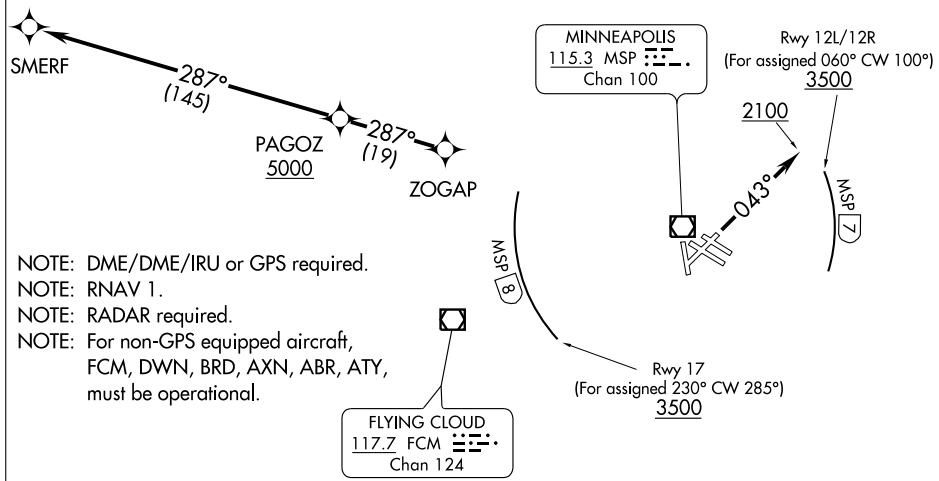
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN
ST-264 (FAA)
MINNEAPOLIS, MINNESOTA

SMERF THREE DEPARTURE (RNAV)

ATIS DEP 120.8
CLNC DEL
133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4

TAKE-OFF MINIMUMS:
Rwys 4, 22, 12L, 12R, 17: Standard.
Rwy 30L: Standard with minimum climb of 210′ per NM to 2100.
Rwy 30R: Standard with minimum climb of 220′ per NM to 2100.
Rwy 35: Standard with minimum climb of 219′ per NM to 2100.

DEPARTURE CROSSING RESTRICTIONS:
Rwy 12L/12R requires an ATC climb gradient of 546′ per NM to 3500.
Rwy 17 requires an ATC climb gradient of 403′ per NM to 3500.



NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.
NOTE: RADAR required.
NOTE: For non-GPS equipped aircraft, FCM, DWN, BRD, AXN, ABR, ATY, must be operational.

NOTE: Chart not to scale.

(NOTES CONTINUED ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 4: Climb heading 043° to 2100. Thence

TAKE-OFF RUNWAYS 12L/12R: For assigned headings from 060° clockwise to 100°, cross MSP VOR/DME 7 DME Arc at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAY 17: For assigned headings from 230° clockwise to 285°, cross MSP VOR/DME 8 DME Arc at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAYS 22, 30L/30R, 35: Climb on assigned heading for radar vectors. Thence

. . . . expect radar vectors to ZOGAP, then via track 287° to PAGOZ and via track 287° to SMERF. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude. Expect filed altitude/flight level 10 minutes after departure.

NC-1, 03 JUN 2010 to 01 JUL 2010

TAKE-OFF OBSTACLE NOTES

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL.
Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL.
Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL.
Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL.
LT poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL.
Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL.
Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline, up to 80′ AGL/919′ MSL.
Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL.
Ground 28′ from DER, 490′ right of centerline, 844′ MSL.

RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL.
Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL.
Wind direction indicator on bldg 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL.
Bldg 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL.
LT 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL.
Tree 2619′ from DER, on centerline, 79′ AGL/900′ MSL.

RWY 30R: Bldg 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL.
Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL.
LT pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL.
Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/857′ MSL.
Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/914′ MSL.
Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL.
Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL.
Multiple buildings beginning 5.45 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL.
Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′ AGL/847′ MSL.
LT pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL.
Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL.
Pipe on bldg, 826′ from DER, 576′ left of centerline, 10′ AGL/825′ MSL.
OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

(TWOLF.TWOLF2) 10154

TWOLF TWO ARRIVAL

ST-264 (FAA)

MINNEAPOLIS, MINNESOTA

MINNEAPOLIS APP CON
126.95 335.5
118.72 (MSP RWY 35)
MINNEAPOLIS ATIS
135.35 239.275
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS
118.35

L.O. SIMENSTAD MUNI
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD)
NEW RICHMOND RGNL
CRYSTAL
ST. PAUL DOWNTOWN HOLMAN FIELD
FLYING CLOUD
MINNEAPOLIS-ST. PAUL INTL/ WOLD CHAMBERLAIN
AIRLAKE

GOPHER
117.3 GEP
Chan 120

FLYING CLOUD
117.7 FCM
Chan 124
N44°49.54′-W93°27.41′

FARMINGTON
115.7 FGT
Chan 104
N44°37.86′-W93°10.92′

MANKATO
110.8 MKT
Chan 45

FORT DODGE
113.5 FOD
Chan 82
N42°36.67′-W94°17.69′
L-12, H-5

300°
R-103
330°
(11)
R-180
R-178
R-201
(8)
5000
(36)
360°
(17)
(9)
(55)
021°
5000
(10)
R-081
6000
(62)
(7)
8000
(22)
(84)
12000
358°
(28)
(112)
12000
032°
(30)
(52)
R-178
GEP
12000
*2900
032°
(22)

SLIKK
N44°47.90′
W93°17.21′

TRGET
N44°13.88′-W93°27.73′

VERTICAL NAVIGATION PLANNING INFORMATION

MSP: Expect clearance to cross at 11000.
All other airports:
Turbojets: Expect clearance to cross at 8000.
Turboprops: Expect clearance to cross at 7000.

GDNEE
N44°30.68′
W93°15.98′

PIKKL
N44°22.82′
W93°21.49′

LYNKS
N44°06.89′
W93°28.39′

KGEEE
N43°44.94′
W93°30.47′

TWOLF
N43°17.00′
W93°33.09′

TICKT
N42°53.71′
W93°59.01′

NOTE: DME and RADAR Required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NC-1, 03 JUN 2010 to 01 JUL 2010

TWOLF TWO ARRIVAL

ARRIVAL DESCRIPTION

FORT DODGE TRANSITION (FOD.TWOLF2): From over FOD VORTAC via FOD R-032 to TWOLF/FOD 52 DME, Thence

....From over TWOLF/GEP 112 DME via GEP R-178 to KGEEE/GEP 84 DME, then as depicted to TRGET INT/GEP 55 DME. Thence....

LANDING MSP RWYS 12L/R: From over TRGET INT via FGT R-201 to FGT VORTAC, then via FGT R-330 to SLIKK INT/FGT 11 DME, then via heading 300° for radar vectors to final approach course.

LANDING MSP RWYS 30L/R, 4, 22, 17, 35: From over TRGET INT via FGT R-201 to FGT VORTAC, then via radar vectors to final approach course.

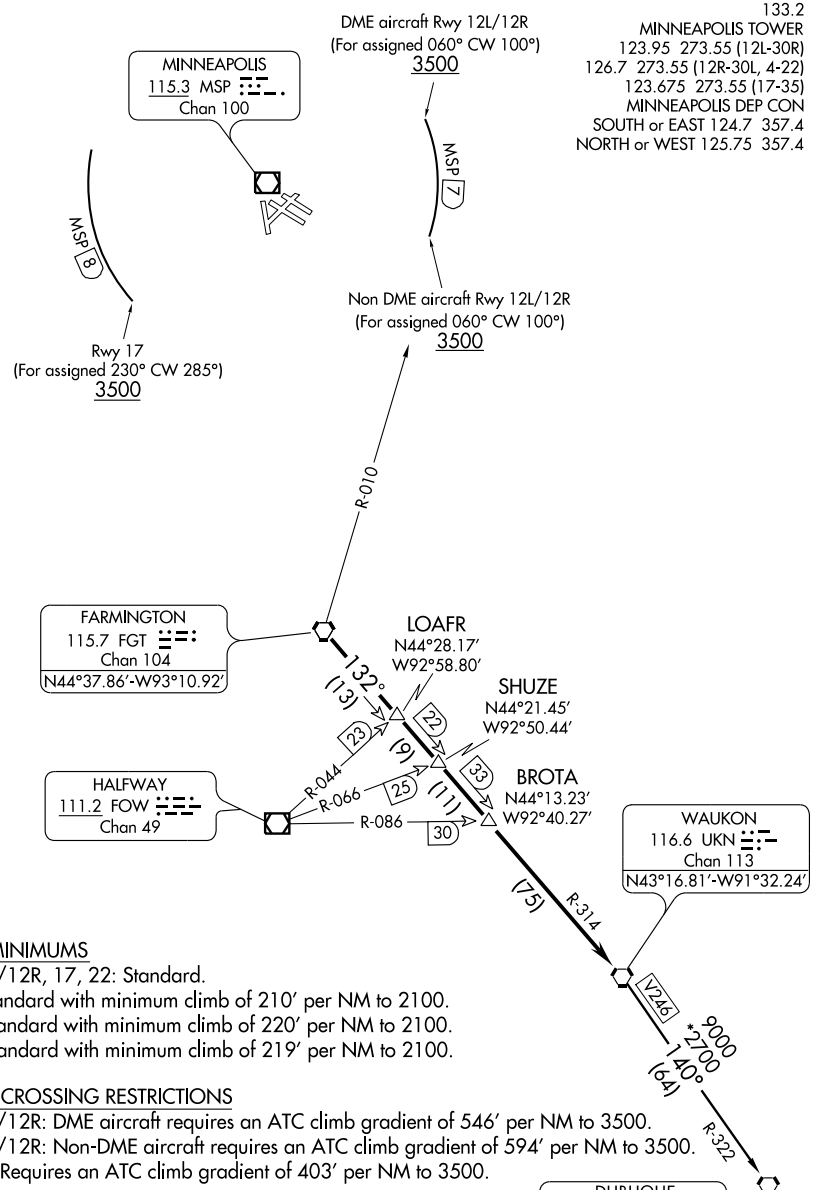
LANDING ALL OTHER AIRPORTS: From over TRGET INT via FCM R-180 to FCM VOR/DME, then expect radar vectors to final approach course.

NC-1. 03 JUN 2010 to 01 JUL 2010

WAUKON THREE DEPARTURE

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)
SL-264 (FAA)
MINNEAPOLIS, MINNESOTA

ATIS DEP 120.8
CLNC DEL 133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4



TAKE-OFF MINIMUMS

Rwys 4, 12L/12R, 17, 22: Standard.
Rwy 30L: Standard with minimum climb of 210′ per NM to 2100.
Rwy 30R: Standard with minimum climb of 220′ per NM to 2100.
Rwy 35: Standard with minimum climb of 219′ per NM to 2100.

DEPARTURE CROSSING RESTRICTIONS

Runway 12L/12R: DME aircraft requires an ATC climb gradient of 546′ per NM to 3500.
Runway 12L/12R: Non-DME aircraft requires an ATC climb gradient of 594′ per NM to 3500.
Runway 17: Requires an ATC climb gradient of 403′ per NM to 3500.

NOTE: RADAR required.
NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

NC-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly assigned heading for radar vectors to FGT VORTAC then via FGT R-132 and UKN R-314 to UKN VORTAC. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude.

DME EQUIPPED AIRCRAFT RWY 12L/12R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

NON DME EQUIPPED AIRCRAFT RWY 12L/12R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross FGT R-010 at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAY 17 DEPARTURES: For assigned headings 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAYS 4, 22, 30L/30R, 35: Initially assigned heading. Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

DUBUQUE TRANSITION (UKN3.DBQ): From over UKN VORTAC via UKN R-140 and DBQ R-322 to DBQ VORTAC.

TAKE-OFF OBSTACLE NOTES

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL. Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL. Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL. Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL. Light poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL. Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL. Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL. Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL. Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL. Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL. Light 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL. Tree 2619′ from DER, on centerline, 79′ AGL/900′ MSL.

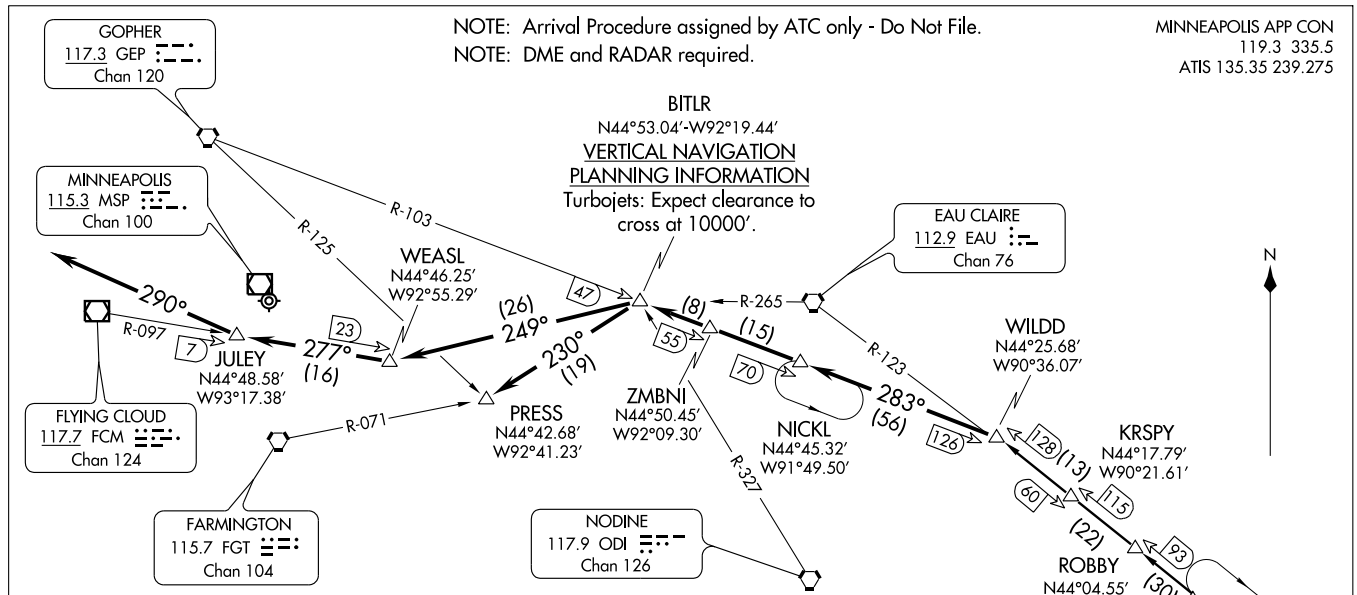
RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline , up to 80′ AGL/919′ MSL. Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL. Ground 28′ from DER, 490′ right of centerline 0′ AGL/844′ MSL.

RWY 30R: Building 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL. Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL. Light pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL. Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/857′ MSL. Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/914′ MSL. Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL. Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL. Multiple buildings beginning 5.45 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL. Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′ AGL/847′ MSL. Light pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL. Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL. Pipe on building, 826′ from DER, 576′ left of centerline, 10′ AGL/825′ MSL. OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010



BADGER TRANSITION (BAE.WILDD2): From over BAE VORTAC via BAE R-307 to WILDD INT. Thence....
....From over WILDD/BAE 128 DME via GEP R-103 to BITLR/GEP 47 DME. Thence....

LANDING MSP RWYS 30L/30R: PRESS SEGMENT- Via heading 230° to FGT R-071/PRESS INT/FGT 22 DME, then expect radar vectors to final approach course.

LANDING MSP RWYS 12L/12R: WEASL SEGMENT- Via heading 249° to FCM R-097/WEASL INT/ FCM 23 DME, then via FCM R-097 to JULEY/FCM 7 DME, then via heading 290° for radar vectors to final approach course.

LANDING ALL OTHER MSP RWYS: Expect radar vectors to final approach course.

(WILDD.WILDD2) 10098

WILDD TWO ARRIVAL

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN

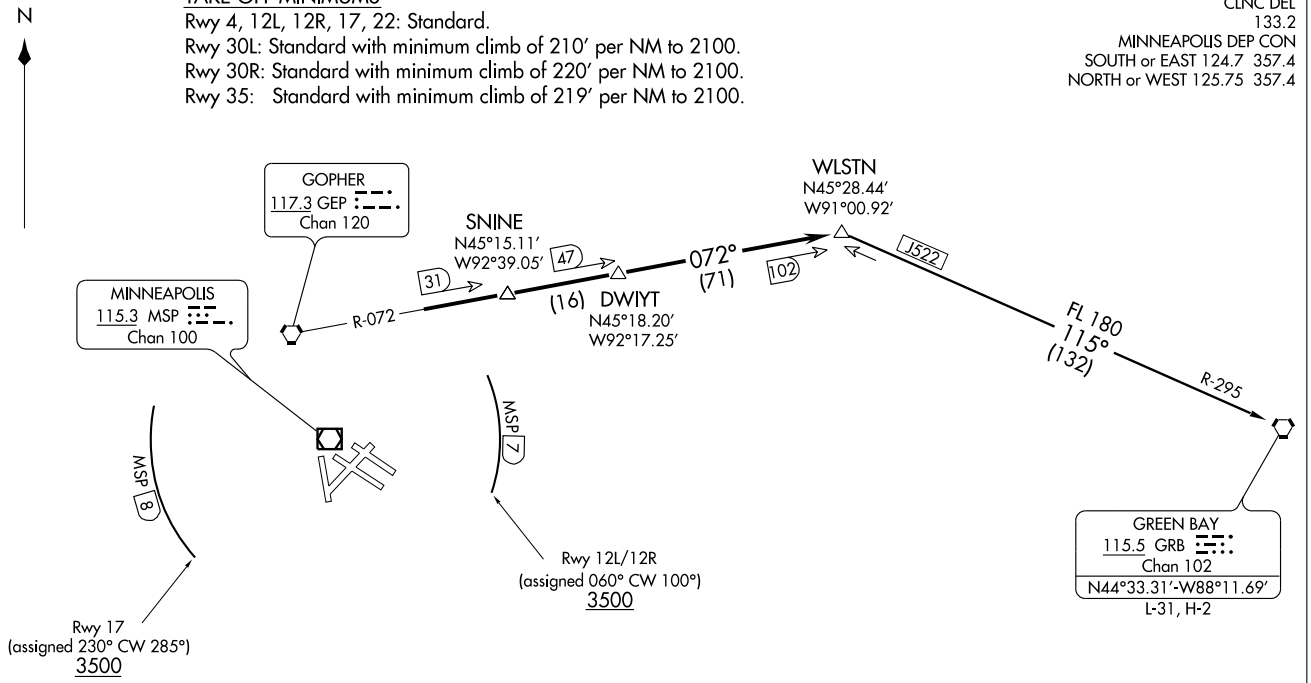
ST-264 (FAA)

MINNEAPOLIS, MINNESOTA

ATIS DEP 120.8
CLNC DEL
133.2
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4

TAKE-OFF MINIMUMS

Rwy 4, 12L, 12R, 17, 22: Standard.
Rwy 30L: Standard with minimum climb of 210′ per NM to 2100.
Rwy 30R: Standard with minimum climb of 220′ per NM to 2100.
Rwy 35: Standard with minimum climb of 219′ per NM to 2100.



DEPARTURE CROSSING RESTRICTIONS

Runway 12L/12R DME aircraft requires an ATC climb gradient of 546′ per NM to 3500.
Runway 17 requires an ATC climb gradient of 403′ per NM to 3500.

NOTE: RADAR and DME required.
NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly assigned heading for radar vectors to GEP R-072 to WLSTN/GEP 102 DME. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude. Thence

TAKE-OFF RUNWAY 12L/12R DEPARTURES: For assigned headings from 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAY 17 DEPARTURES: For assigned headings from 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence

TAKE-OFF RUNWAYS 4, 22, 30L/30R, 35: Initially assigned heading. Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

GREEN BAY TRANSITION (WLSTN3.GRB): From over WLSTN via GRB R-295 to GRB VORTAC.

TAKE-OFF OBSTACLE NOTES

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL.
Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL.
Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL.
Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL.
Light poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL.
Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL.
Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline, up to 80′ AGL/919′ MSL.
Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL.
Ground 28′ from DER, 490′ right of centerline, 0′ AGL/844′ MSL.

RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL.
Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL.
Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL.
Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL.
Light 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL.
Tree 2619′ from DER, on centerline, 79′ AGL/900′ MSL.

RWY 30R: Building 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL.
Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL.
Light pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL.
Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/ 857′ MSL.
Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/ 914′ MSL.
Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

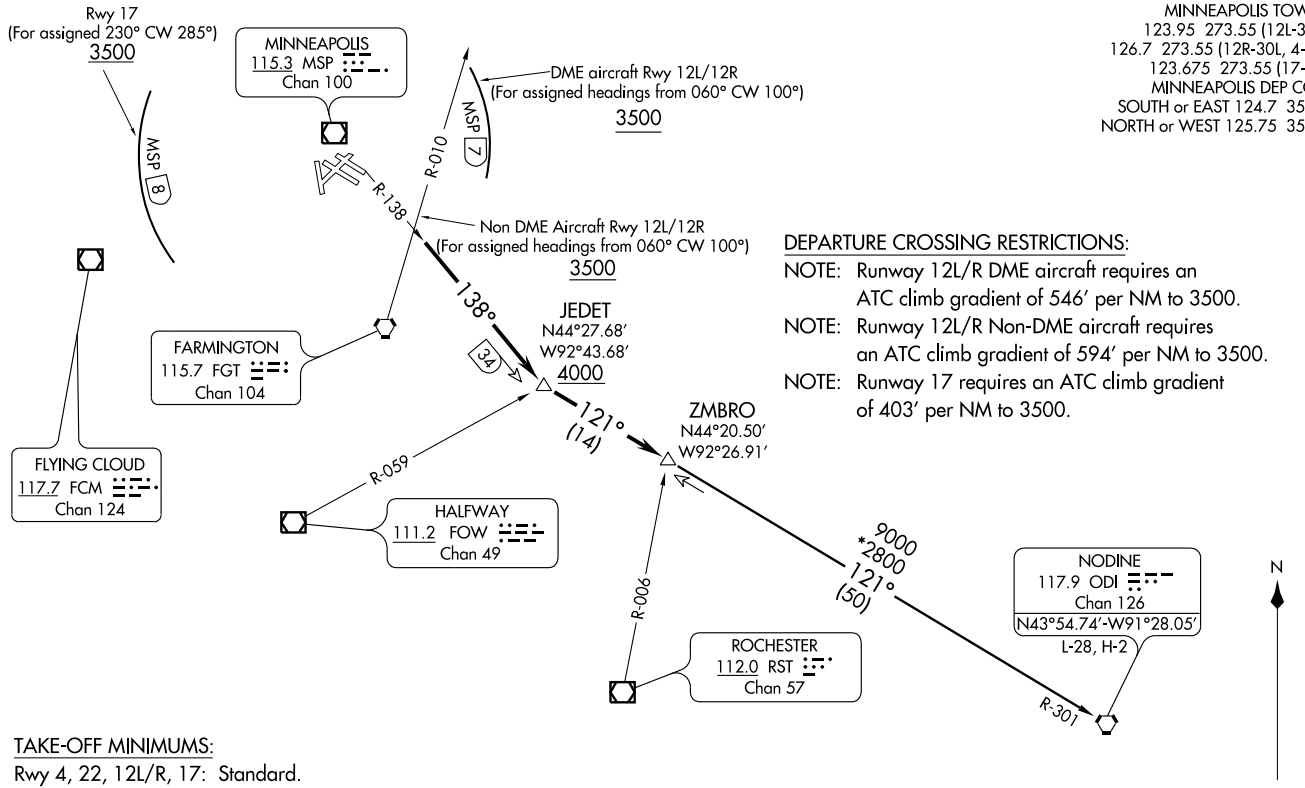
RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL.
Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL.
Multiple buildings beginning 5.5 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL.
Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′AGL/847′ MSL.
Light pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL.
Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL.
Pipe on building 826′ from DER, 576′ left of centerline, 10′ AGL/825′ MSL.
OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

ZMBRO THREE DEPARTURE

ATIS DEP 120.8
CLNC DEL 133.2
MINNEAPOLIS TOWER
123.95 273.55 (12L-30R)
126.7 273.55 (12R-30L, 4-22)
123.675 273.55 (17-35)
MINNEAPOLIS DEP CON
SOUTH or EAST 124.7 357.4
NORTH or WEST 125.75 357.4



DEPARTURE CROSSING RESTRICTIONS:

NOTE: Runway 12L/R DME aircraft requires an ATC climb gradient of 546' per NM to 3500.

NOTE: Runway 12L/R Non-DME aircraft requires an ATC climb gradient of 594' per NM to 3500.

NOTE: Runway 17 requires an ATC climb gradient of 403' per NM to 3500.

TAKE-OFF MINIMUMS:

Rwy 4, 22, 12L/R, 17: Standard.
Rwy 35: Standard with minimum climb of 219' per NM to 2100.
Rwy 30L: Standard with minimum climb of 210' per NM to 2100.
Rwy 30R: Standard with minimum climb of 220' per NM to 2100.

NOTE: RADAR Required

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF ALL RUNWAYS: Fly assigned heading for radar vectors to MSP R-138 to JEDET INT/ MSP 34 DME, at or above 4000; then via ODI R-301 to ZMBRO INT/ODI 50 DME. Turbojet aircraft maintain 7000 or lower assigned altitude, all other aircraft maintain 5000 or lower assigned altitude, Thence

DME EQUIPPED AIRCRAFT RWY 12L/R DEPARTURES: For assigned heading 060° clockwise to 100°, cross MSP 7 DME at or above 3500, maintain assigned altitude. If unable to comply advise ATC as soon as possible prior to departure. Thence. . . .

TAKE-OFF RWY 17 DEPARTURES: For assigned heading 230° clockwise to 285° cross MSP 8 DME at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence. . . .

NON-DME EQUIPPED AIRCRAFT RWY 12L/R DEPARTURES: For assigned heading 060° clockwise to 100°, cross FGT R-010 at or above 3500, maintain assigned altitude. If unable to comply, advise ATC as soon as possible prior to departure. Thence. . . .

TAKE-OFF RWYS 4, 22, 30L/R, 35: Initially assigned heading, Thence. . . .

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

NODINE TRANSITION (ZMBRO3.ODI): From over ZMBRO INT via ODI R-301 to ODI VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 4: Multiple trees beginning 800′ from DER, 264′ left of centerline, up to 75′ AGL/921′ MSL. Rod on building 2528′ from DER, 1175′ left of centerline, 78′ AGL/922′ MSL. Fence 803′ from DER, 585′ left of centerline, 15′ AGL/860′ MSL. Antenna on OL building 456′ from DER, 319′ left of centerline, 13′ AGL/850′ MSL. Light poles 1932′ from DER, 718′ left of centerline, 45′ AGL/885′ MSL. Stack 4535′ from DER, 481′ left of centerline, 139′ AGL/949′ MSL.

RWY 12R: Multiple trees beginning 1477′ from DER, 407′ left of centerline, up to 86′ AGL/851′ MSL. Multiple trees beginning 1426′ from DER, 124′ right of centerline, up to 111′AGL/847′ MSL. Light pole 1408′ from DER, 746′ right of centerline, 85′ AGL/843′ MSL. Radar reflector 983′ from DER, 32′ left of centerline, 15′ AGL/829′ MSL. Pipe on building 826′ from DER, 576′ left of centerline, 10′ AGL/825′ AGL. OL on LOC 766′ from DER, on centerline, 7′ AGL/821′ MSL.

RWY 17: Antenna 1272′ from DER, 562′ right of centerline, 57′ AGL/891′ MSL. Pole 409′ from DER, 530′ right of centerline, 29′ AGL/866′ MSL. Wind direction indicator on building 2619′ from DER, 881′ left of centerline, 97′ AGL/918′ MSL. Building 2619′ from DER, 859′ left of centerline, 84′ AGL/905′ MSL. Light 1176′ from DER, 291′ right of centerline, 11′ AGL/875′ MSL. Tree 2619′ from DER, on centerline , 79′ AGL/900′ MSL.

RWY 22: Tree 2906′ from DER, 833′ right of centerline, 94′ AGL/934′ MSL. Hopper 1717′ from DER, 456′ left of centerline, 48′ AGL/888′ MSL.

RWY 30L: Multiple trees beginning 1113′ from DER, 701′ left of centerline , up to 80′ AGL/919′ MSL. Tree 1230′ from DER, 633′ right of centerline, 30′ AGL/877′ MSL. Ground 28′ from DER, 490′ right of centerline, 0′ AGL/844′ MSL.

RWY 30R: Building 1056′ from DER, 198′ left of centerline, 13′ AGL/853′ MSL. Multiple trees beginning 3010′ from DER, 334′ left of centerline, up to 94′ AGL/940′ MSL. Light pole 1849′ from DER, 698′ right of centerline, 17′ AGL/871′ MSL. Fence 1327′ from DER, 667′ right of centerline, 8′ AGL/ 857′ MSL. Tree 3703′ from DER, 350′ right of centerline, 67′ AGL/ 914′ MSL. Rod on pole 3143′ from DER, 47′ right of centerline, 38′ AGL/898′ MSL.

RWY 35: Tree 175′ from DER, 398′ right of centerline, 73′ AGL/883′ MSL. Multiple trees beginning 1989′ from DER, 351′ left of centerline, up to 65′ AGL/902′ MSL. Multiple buildings beginning 5.5 NM from DER, 1787′ left of centerline, up to 811′ AGL/1743′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME MVE	APP CRS	Rwy Idg	4000
111.6	128°	TDZE	1034
Chan 53		Apt Elev	1034

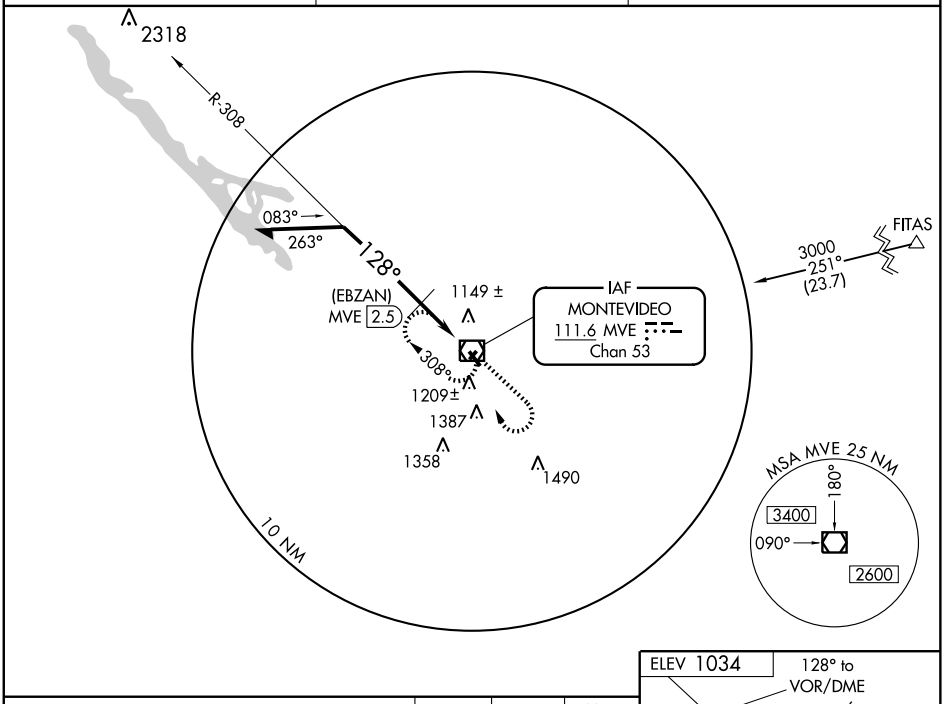
VOR or GPS RWY 14

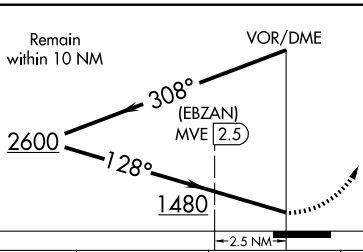
MONTEVIDEO-CHIPPEWA COUNTY (MVE)

NA

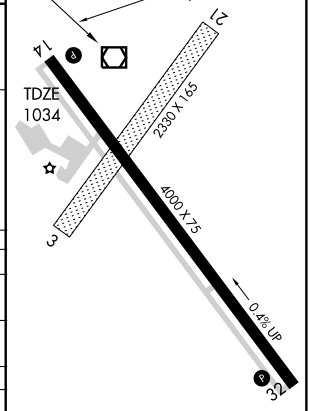
MISSED APPROACH: Climb to 2000 then climbing right turn to 2600 direct MVE VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
111.6	125.5 323.1	122.8 (CTAF) L





2000	2600	MVE



CATEGORY	A	B	C	D
S-14	1480-1	446 (500-1)	1480-1¼ 446 (500-1¼)	1480-1½ 446 (500-1½)
CIRCLING	1520-1	486 (500-1)	1520-1½ 486 (500-1½)	1700-2 666 (700-2)
DME MINIMUMS				
S-14	1400-1	366 (400-1)		1400-1¼ 366 (400-1¼)
CIRCLING	1520-1	486 (500-1)	1520-1½ 486 (500-1½)	1700-2 666 (700-2)

REIL Rwys 14 and 32 L
MIRL Rwy 14-32 L

NC-1. 03 JUN 2010 to 01 JUL 2010

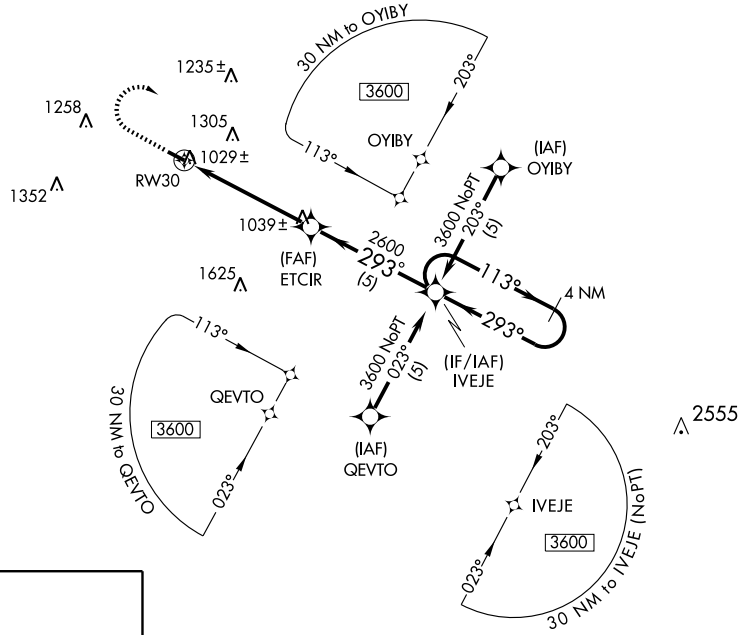
APP CRS	Rwy Idg	4300
293°	TDZE	917
	Apt Elev	917

RNAV (GPS) RWY 30

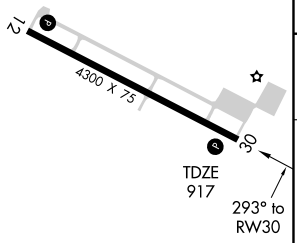
MOORHEAD MUNI (JKJ)

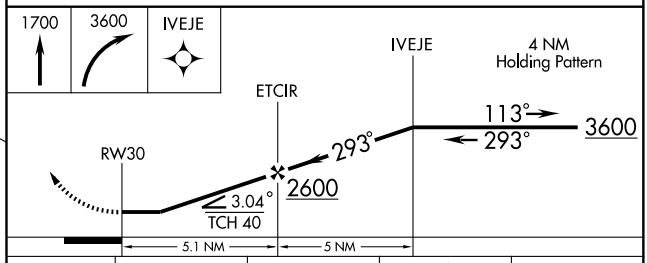
NA	DME/DME RNP- 0.3 NA.	MISSED APPROACH: Climb to 1700 then climbing right turn to 3600 direct IVEJE WP and hold.

AWOS-3	FARGO APP CON ★	UNICOM
120.0	120.4 377.15	123.0 (CTAF) L



ELEV 917





CATEGORY	A	B	C	D
LNAV MDA	1300-1 383 (400-1)		NA	
CIRCLING	1340-1 423 (500-1)	1380-1 463 (500-1)	NA	

REIL Rwys 12 and 30 L
MIRL Rwy 12-30 L

NC-1. 03 JUN 2010 to 01 JUL 2010

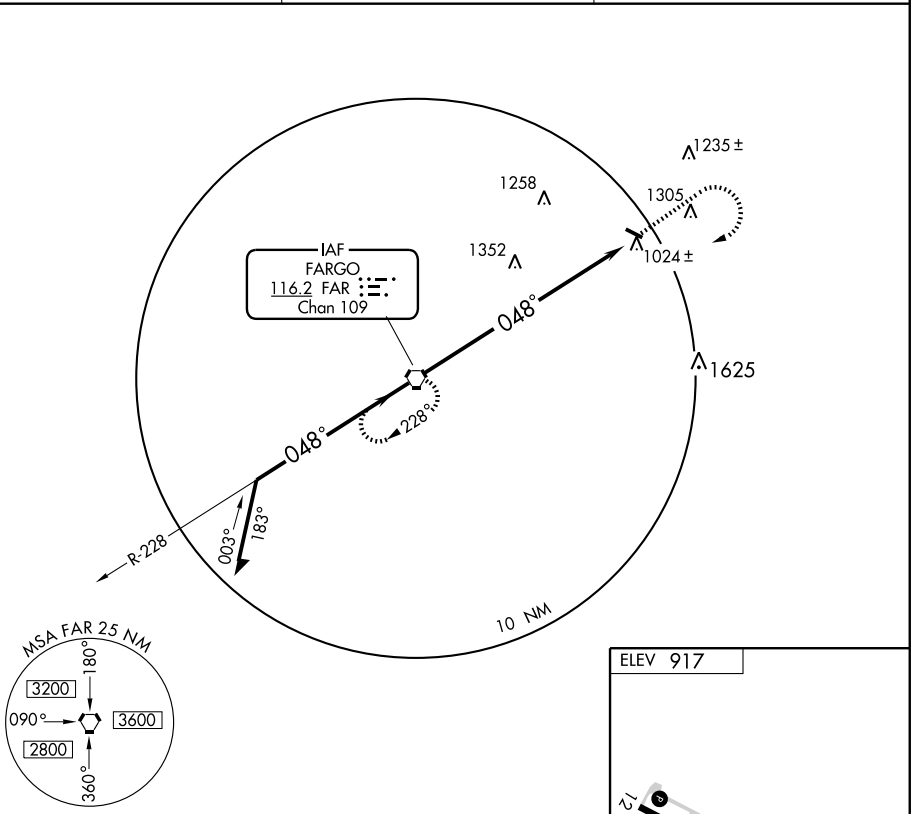
VORTAC FAR	APP CRS	Rwy Idg	N/A
116.2	048°	TDZE	N/A
Chan 109		Apt Elev	917

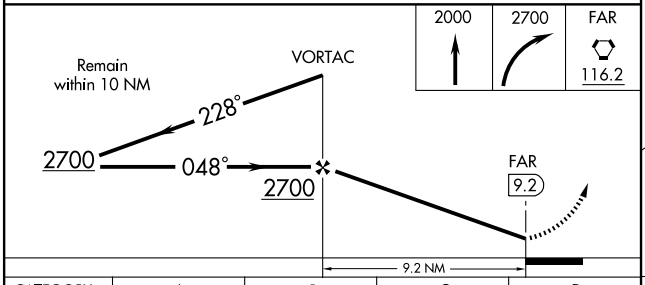
VOR-A

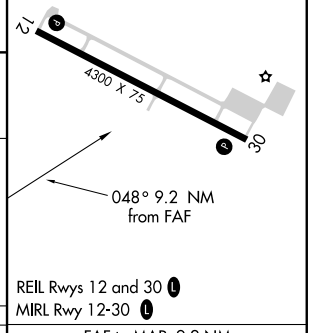
MOORHEAD MUNI (JKJ)

MISSED APPROACH: Climb to 2000, then climbing right turn to 2700 direct FAR VORTAC and hold.

AWOS-3	FARGO APP CON ★	UNICOM
120.0	120.4 377.15	123.0 (CTAF) L







REIL Rwys 12 and 30 L
MIRL Rwy 12-30 L

CATEGORY	A	B	C	D
CIRCLING	1580-1 663 (700-1)		NA	

FAF to MAP 9.2 NM

Knots	60	90	120	150	180
Min:Sec	9:12	6:08	4:36	3:41	3:04

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3200
038°	TDZE	1076
	Apt Elev	1076

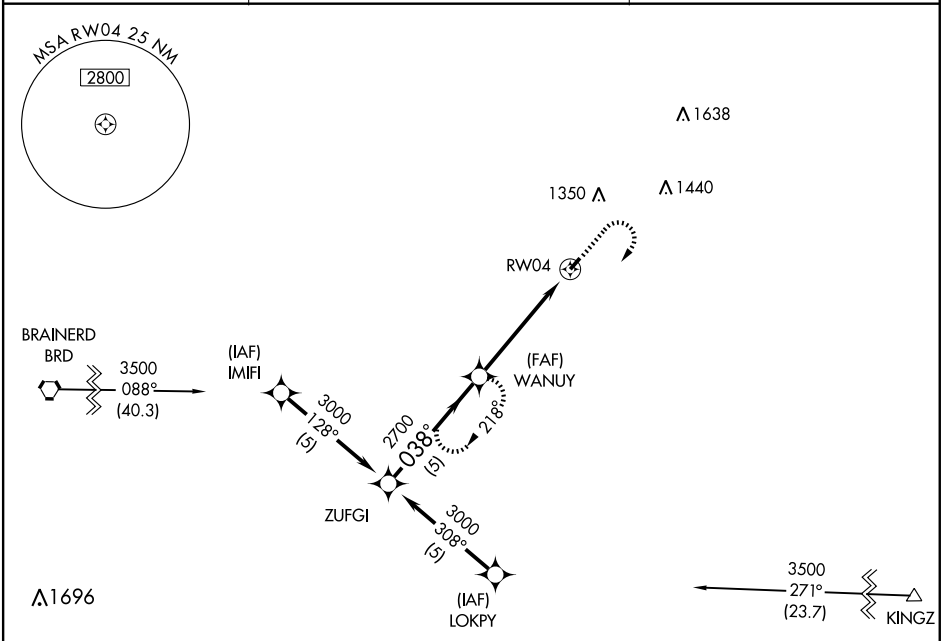
GPS RWY 4

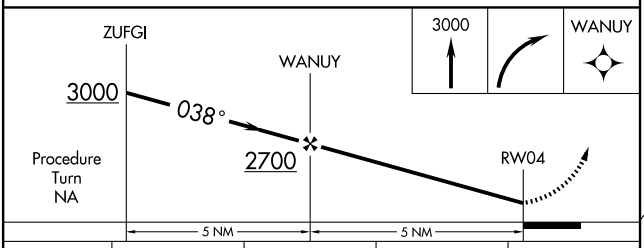
MOOSE LAKE CARLTON COUNTY (MZH)

NA

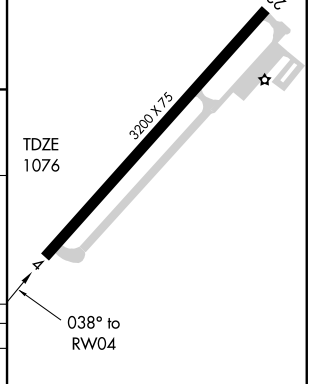
MISSED APPROACH: Climb to 3000 then right turn direct WANUY WP and hold.

AWOS-3	DULUTH APP CON ★	CTAF
362	125.45 255.9	122.9 L





CATEGORY	A	B	C	D
S-4	1540-1	464 (500-1)	NA	
CIRCLING	1660-1	584 (600-1)	NA	



REIL Rwys 4 and 22 L
MIRL Rwy 4-22 L

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB MZH	APP CRS	Rwy Idg	3200
362	041°	TDZE	1076
		Apt Elev	1076

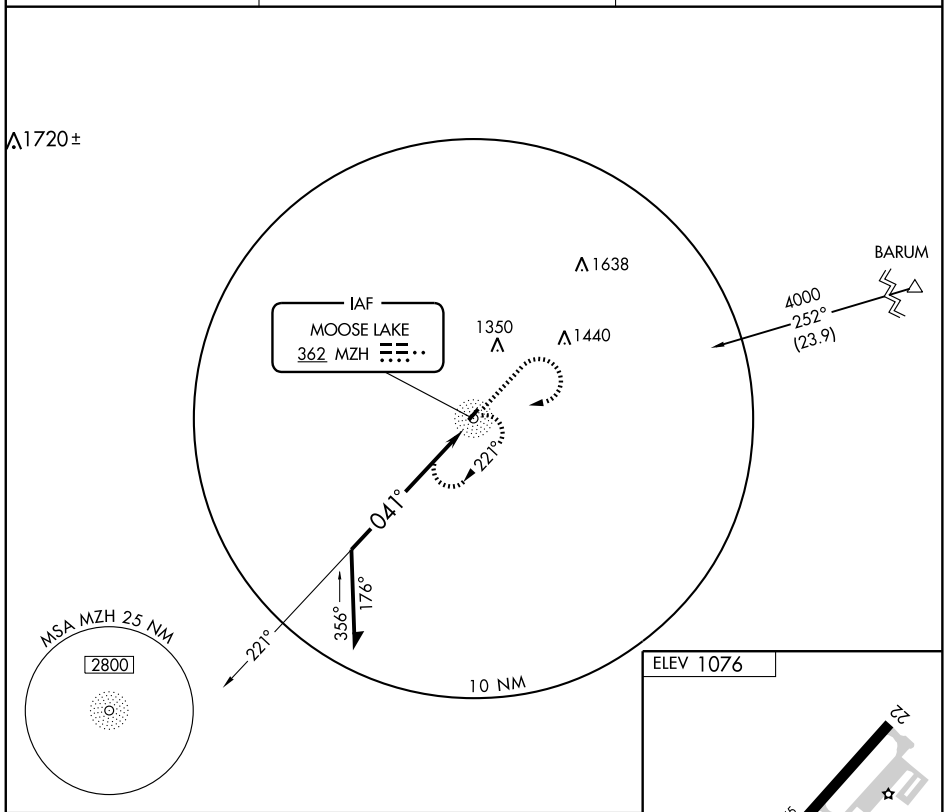
NDB RWY 4

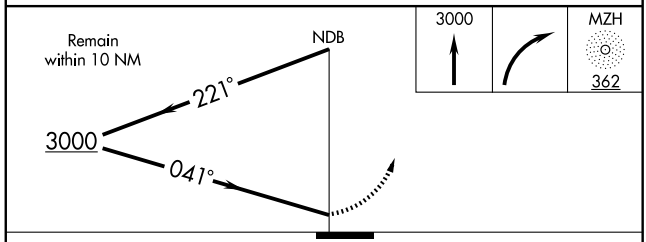
MOOSE LAKE CARLTON COUNTY (MZH)

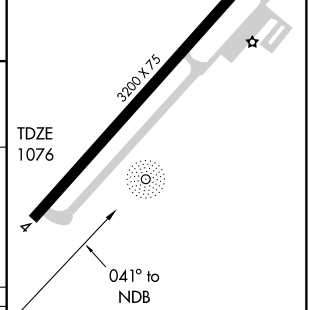
NA

MISSED APPROACH: Climb to 3000, then right turn direct MZH NDB and hold.

AWOS-3	DULUTH APP CON *	CTAF
362	125.45 255.9	122.9 L







CATEGORY	A	B	C	D
S-4	1800-1	724 (800-1)	NA	
CIRCLING	1800-1	724 (800-1)	NA	

REIL Rwys 4 and 22 L
MIRL Rwy 4-22 L

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB JMR	APP CRS	Rwy Idg	3998
327	355°	TDZE	1008
		Apt Elev	1012

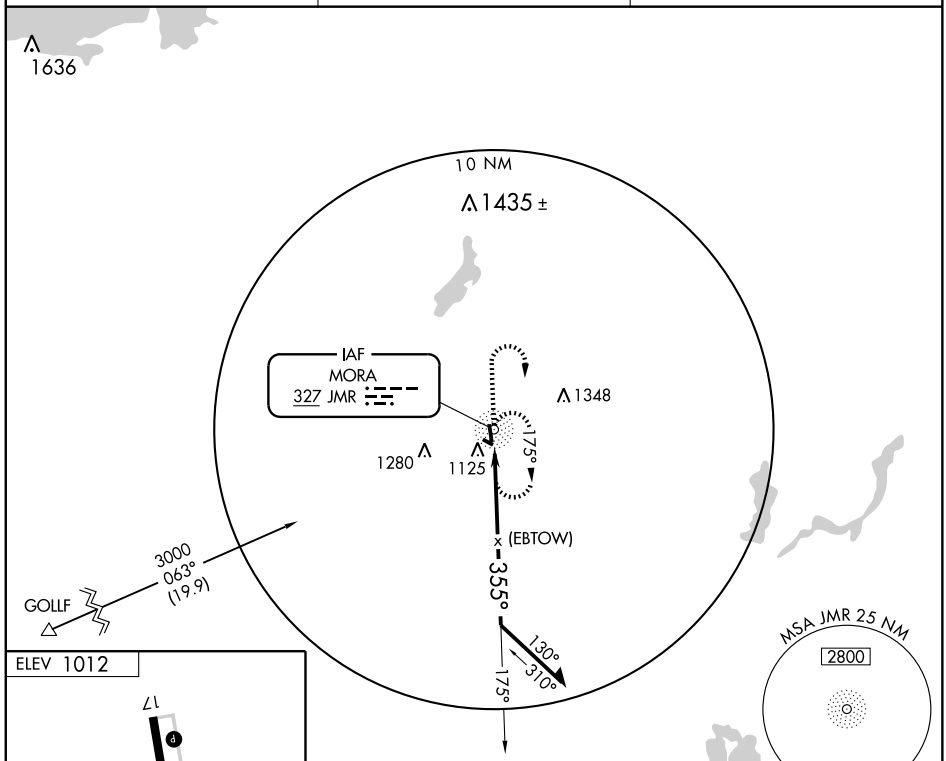
NDB or GPS RWY 35

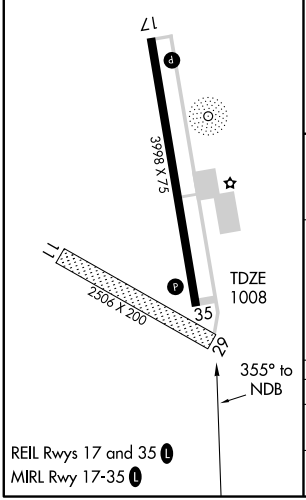
MORA MUNI (JMR)

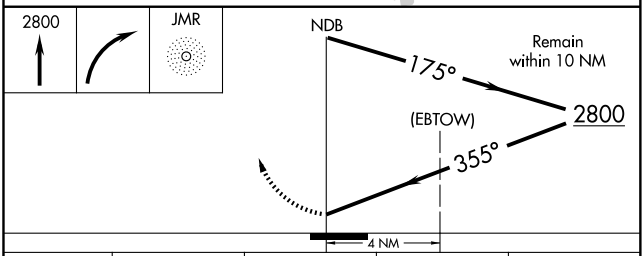
NA

MISSED APPROACH: Climb to 2800 then right turn direct JMR NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
327	121.05 397.9	122.8 L







CATEGORY	A	B	C	D
S-35	1500-1	492 (500-1)	1500-1¼ 492 (500-1¼)	1500-1½ 492 (500-1½)
CIRCLING	1500-1	488 (500-1)	1500-1½ 488 (500-1½)	1640-2 628 (700-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4000
139°	TDZE	1132
	Apt Elev	1138

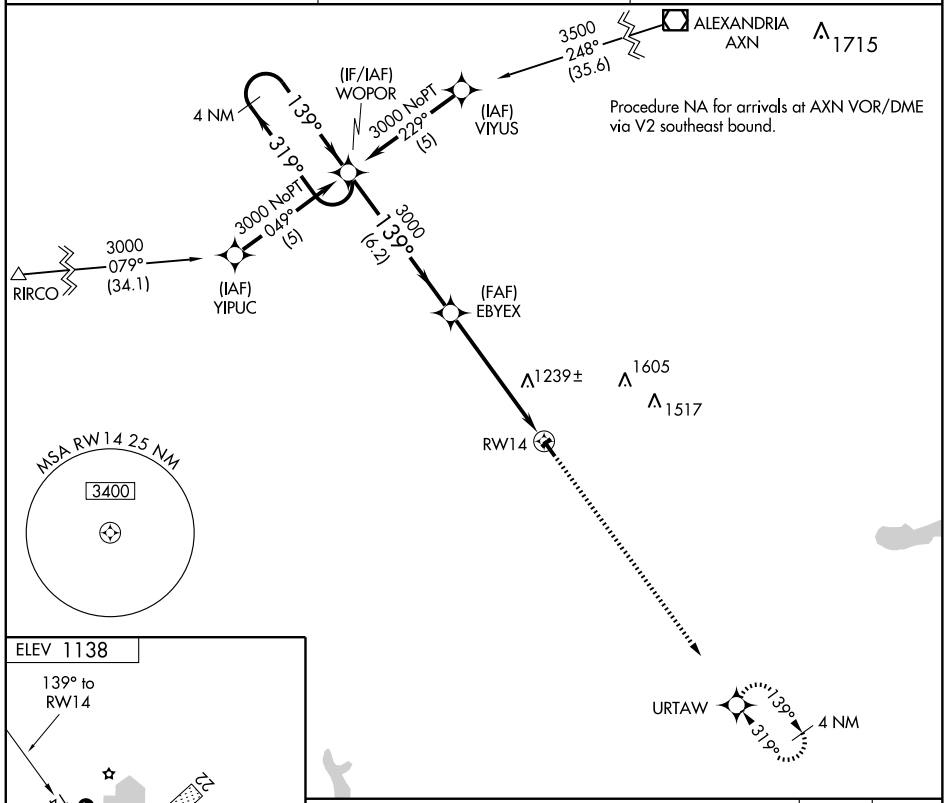
RNAV (GPS) RWY 14

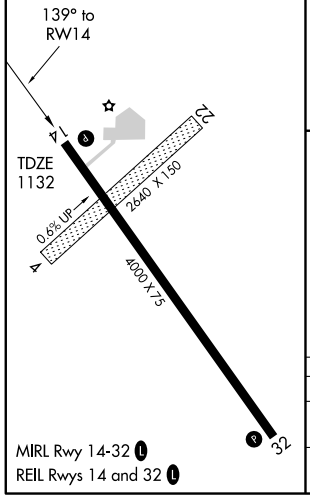
MORRIS MUNI-CHARLIE SCHMIDT FIELD (MOX)

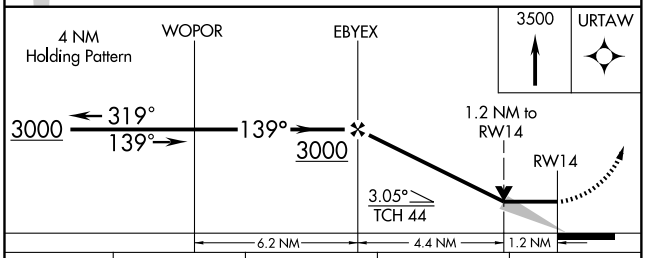
DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Benson altimeter setting and increase all MDA 60 feet.
VDP NA when using Benson altimeter setting.

MISSED APPROACH: Climb to 3500 direct URTAW and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
109.6	126.1 269.2	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1560-1 428 (500-1)		1560-1¼ 428 (500-1¼)	NA
CIRCLING	1560-1 422 (500-1)	1600-1 462 (500-1)	1600-1½ 462 (500-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4000
319°	TDZE	1132
	Apt Elev	1138

RNAV (GPS) RWY 32

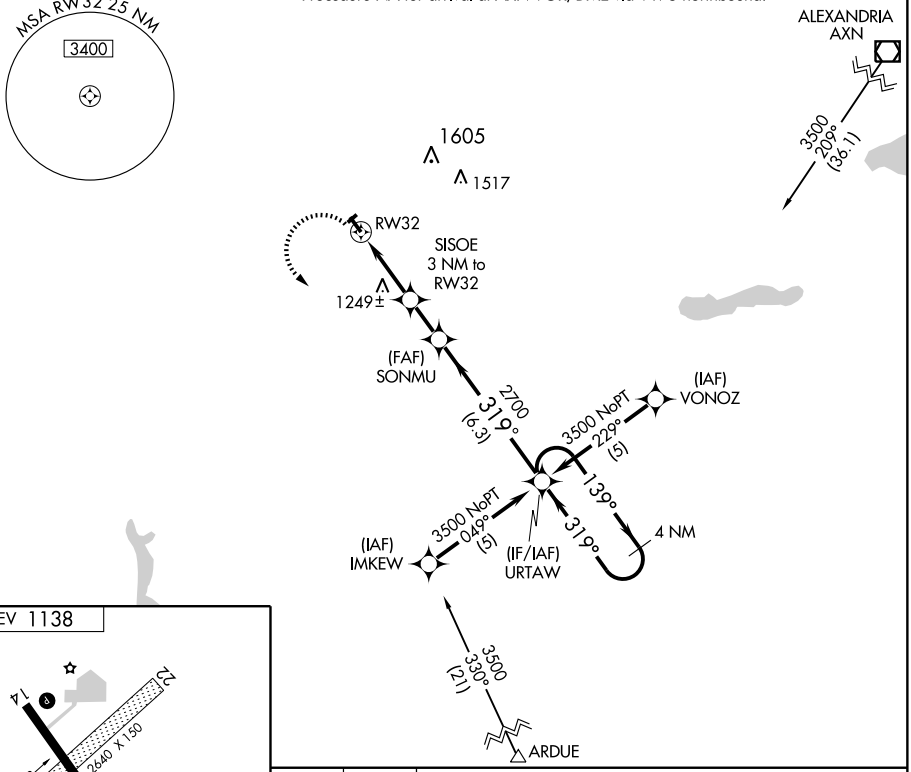
MORRIS MUNI-CHARLIE SCHMIDT FIELD (MOX)

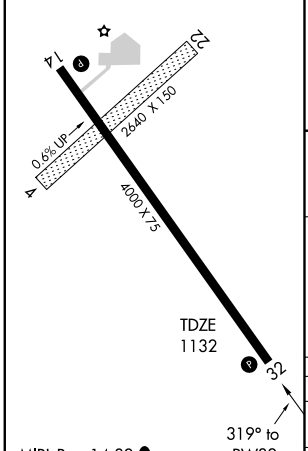
DME/DME RNP-0.3 NA.
VDP NA when using Benson altimeter setting.
When local altimeter setting not received, use Benson altimeter setting and increase all MDAs 60 feet.

MISSED APPROACH: Climbing left turn to 3500 direct URTAW and hold.

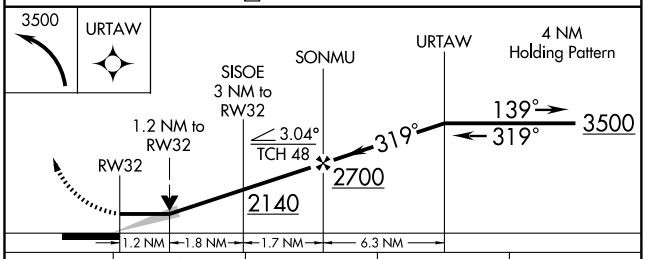
AWOS-3	MINNEAPOLIS CENTER	UNICOM
109.6	126.1 269.2	122.8 (CTAF) L

Procedure NA for arrival at AXN VOR/DME via V175 northbound.





MIRL Rwy 14-32 L
REIL Rwys 14 and 32 L



CATEGORY	A	B	C	D
LNAV MDA	1540-1 408 (500-1)		1540-1¼ 408 (500-1¼)	NA
CIRCLING	1560-1 422 (500-1)	1600-1 462 (500-1)	1600-1½ 462 (500-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME MOX	APP CRS	Rwy Idg	4000
109.6	144°	TDZE	1132
Chan 33		Apt Elev	1138

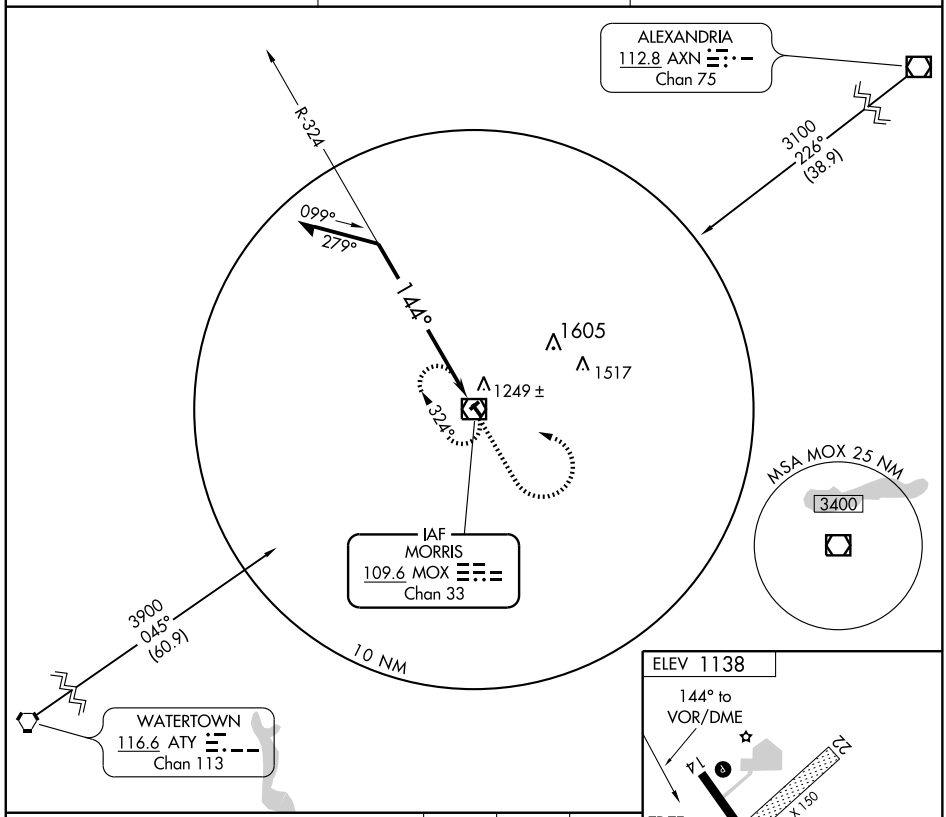
VOR RWY 14

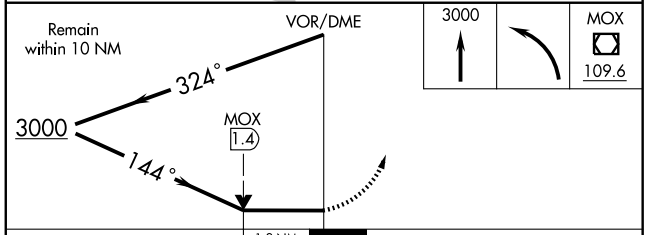
MORRIS MUNI-CHARLIE SCHMIDT FIELD (MOX)

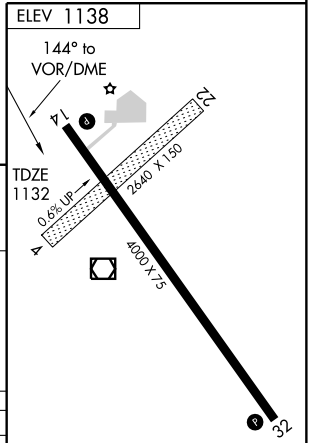
When local altimeter setting not received, use Benson altimeter setting and increase all MDA 60 feet.
VDP NA when using Benson altimeter setting.

MISSED APPROACH: Climb to 3000 then left turn direct MOX VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
109.6	126.1 269.2	122.8 (CTAF)







CATEGORY	A	B	C	D
S-14	1560-1 428 (500-1)		1560-1¼ 428 (500-1¼)	NA
CIRCLING	1560-1 422 (500-1)	1600-1 462 (500-1)	1600-1½ 462 (500-1½)	NA

MIRL Rwy 14-32 (L)
REIL Rwys 14 and 32 (L)

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME MOX	APP CRS	Rwy Idg	4000
109.6	315°	TDZE	1132
Chan 33		Apt Elev	1138

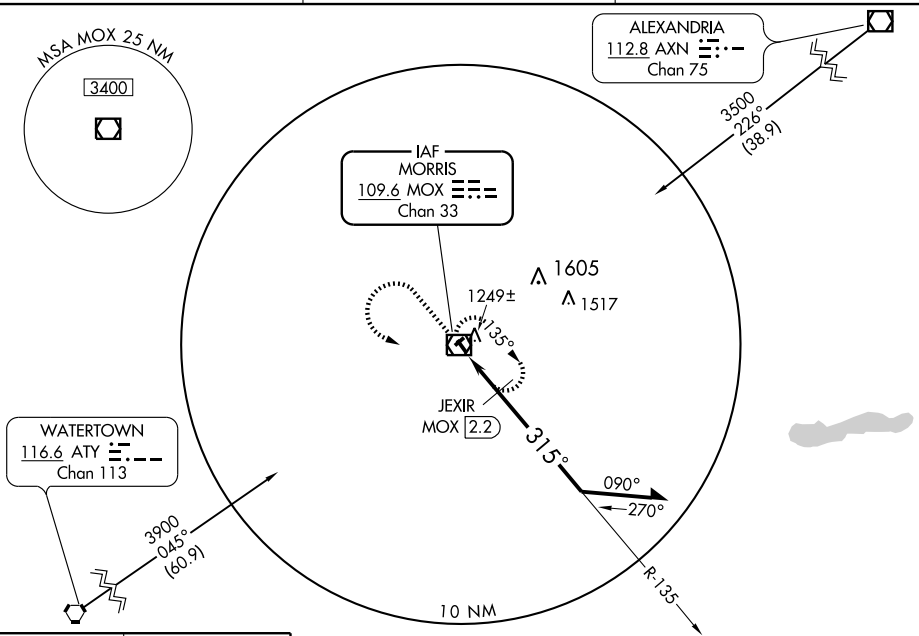
VOR RWY 32

MORRIS MUNI-CHARLIE SCHMIDT FIELD (MOX)

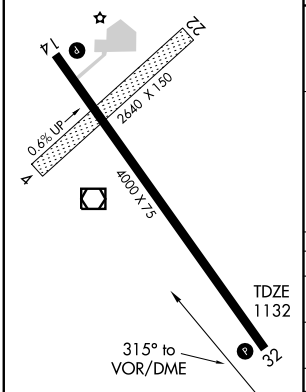
VDP NA when using Benson altimeter setting.
NA When local altimeter setting not received, use Benson altimeter setting and increase all MDAs 60 feet, and Cat. C visibility ¼ mile, JEXIR FIX MINIMUMS S-32 Cat. C visibility ¼ mile.

MISSED APPROACH: Climb to 3000 then left turn direct MOX VOR/DME and hold.

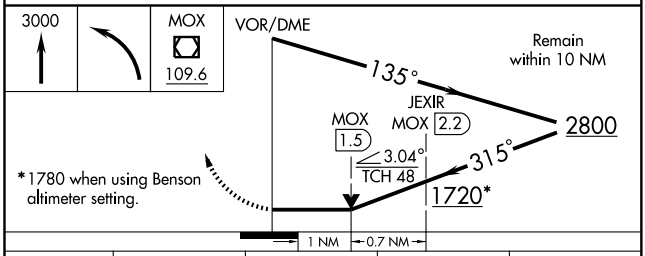
AWOS-3	MINNEAPOLIS CENTER	UNICOM
109.6	126.1 269.2	122.8 (CTAF) L



ELEV 1138



MIRL Rwy 14-32 L
REIL Rwys 14 and 32 L



CATEGORY	A	B	C	D
S-32	1720-1 588 (600-1)		1720-1½ 588 (600-1½)	NA
CIRCLING	1720-1 582 (600-1)		1720-1½ 582 (600-1½)	NA
JEXIR FIX MINIMUMS				
S-32	1500-1 368 (400-1)			NA
CIRCLING	1560-1 422 (500-1)	1600-1 462 (500-1)	1600-1½ 462 (500-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB/DME ULM	APP CRS	Rwy Idg	4401
272	140°	TDZE	1005
Chan 50 (111.3)		Apt Elev	1011

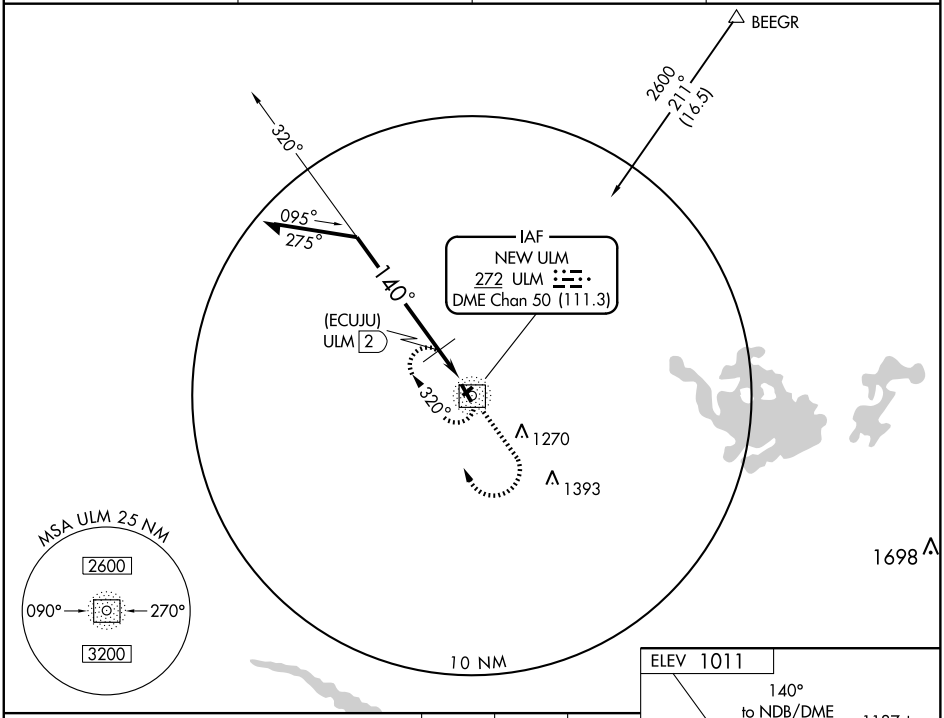
NDB or GPS RWY 15

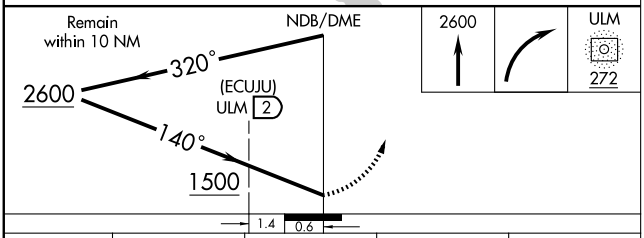
NEW ULM MUNI (ULM)

NA

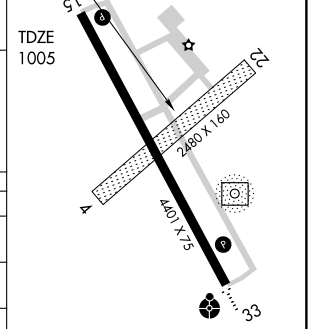
MISSED APPROACH: Climb to 2600 then right turn direct ULM NDB/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
118.325	127.1 290.2	121.725	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-15	1500-1	495 (500-1)	1500-1¼ 495 (500-1¼)	1500-1½ 495 (500-1½)
CIRCLING	1500-1	489 (500-1)	1500-1½ 489 (500-1½)	1740-2¼ 729 (800-2¼)
DME MINIMUMS				
S-15	1440-1	435 (500-1)	1440-1¼ 435 (500-1¼)	1440-1½ 435 (500-1½)
CIRCLING	1440-1 429 (500-1)	1480-1 469 (500-1)	1480-1½ 469 (500-1½)	1740-2¼ 729 (800-2¼)



REIL Rwys 15 and 33 L
MIRL Rwy 15-33 L

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB/DME ULM 272 Chan 50 (111.3)	APP CRS 354°	Rwy Idg 4401 TDZE 1011 Apt Elev 1011

NDB or GPS RWY 33

NEW ULM MUNI (ULM)

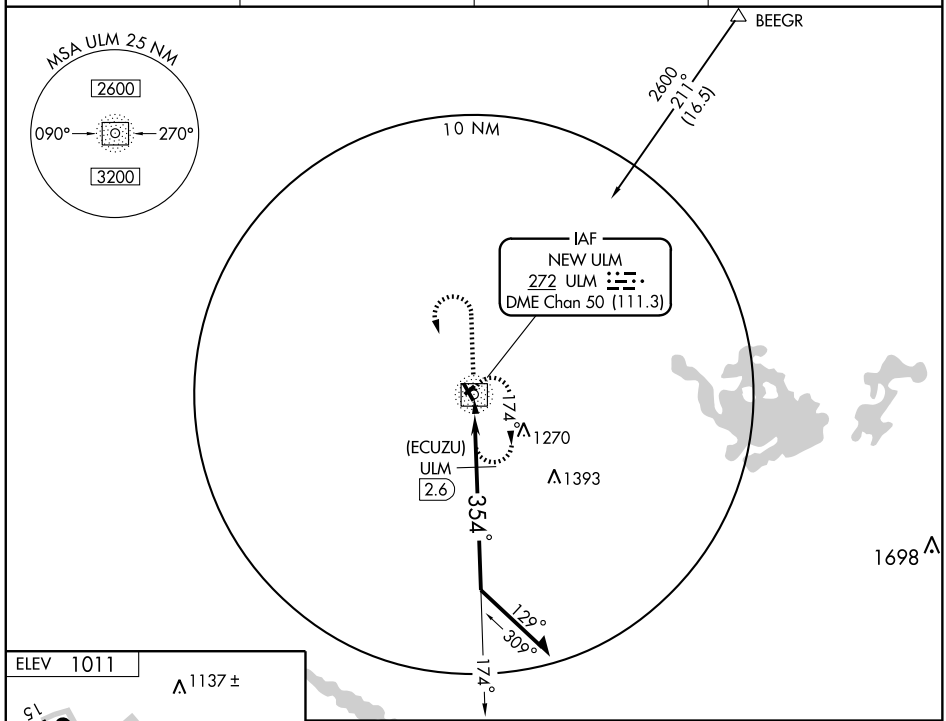
Inoperative table does not apply to S-33 Cats C and D.

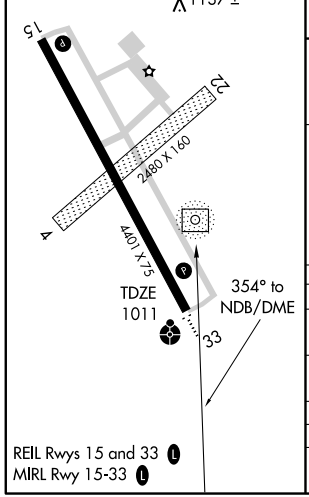
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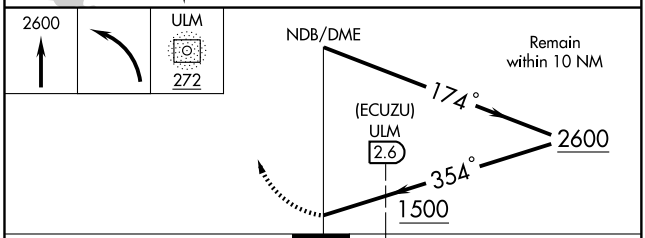
ODALS

MISSED APPROACH: Climb to 2600 then left turn direct ULM NDB/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
118.325	127.1 290.2	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-33	1500-¾ 489 (500-¾)		1500-1¼ 489 (500-1¼)	1500-1½ 489 (500-1½)
CIRCLING	1500-1 489 (500-1)		1500-1½ 489 (500-1½)	1740-2¼ 729 (800-2¼)
DME MINIMUMS				
S-33	1420-¾ 409 (500-¾)		1420-1¼ 409 (500-1¼)	
CIRCLING	1440-1 429 (500-1)	1480-1 469 (500-1)	1480-1½ 469 (500-1½)	1740-2¼ 729 (800-2¼)

NC-1, 03 JUN 2010 to 01 JUL 2010

OLIVIA, MINNESOTA

AL-6301 (FAA)

RNAV (GPS) RWY 29

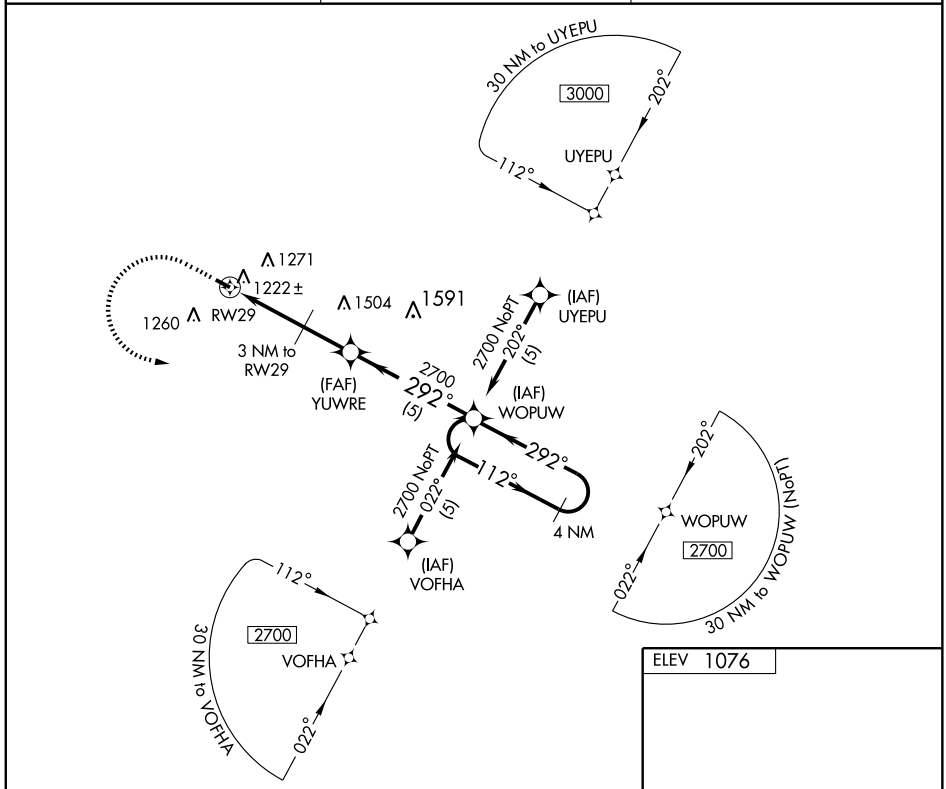
OLIVIA RGNL (OVL)

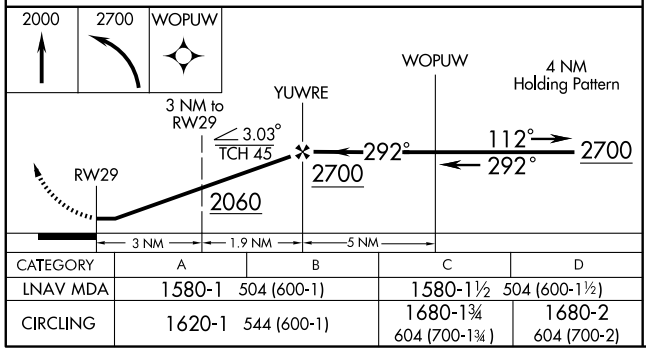
APP CRS	Rwy Idg	TDZE	Apt Elev
292°	3498	1076	1076

Use Redwood Falls altimeter setting.
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

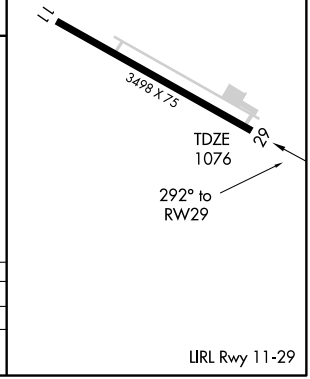
MISSED APPROACH: Climb to 2000 then climbing left turn to 2700 direct WOPUW WP and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.275	127.1 290.2	122.8 (CTAF)





CATEGORY	A	B	C	D
LNAV MDA	1580-1 504 (600-1)		1580-1½ 504 (600-1½)	
CIRCLING	1620-1 544 (600-1)		1680-1¾ 604 (700-1¾)	1680-2 604 (700-2)



LIRL Rwy 11-29

NC-1. 03 JUN 2010 to 01 JUL 2010

OLIVIA, MINNESOTA

AL-6301 (FAA)

VOR/DME or GPS-A

OLIVIA RGNL (OVL)

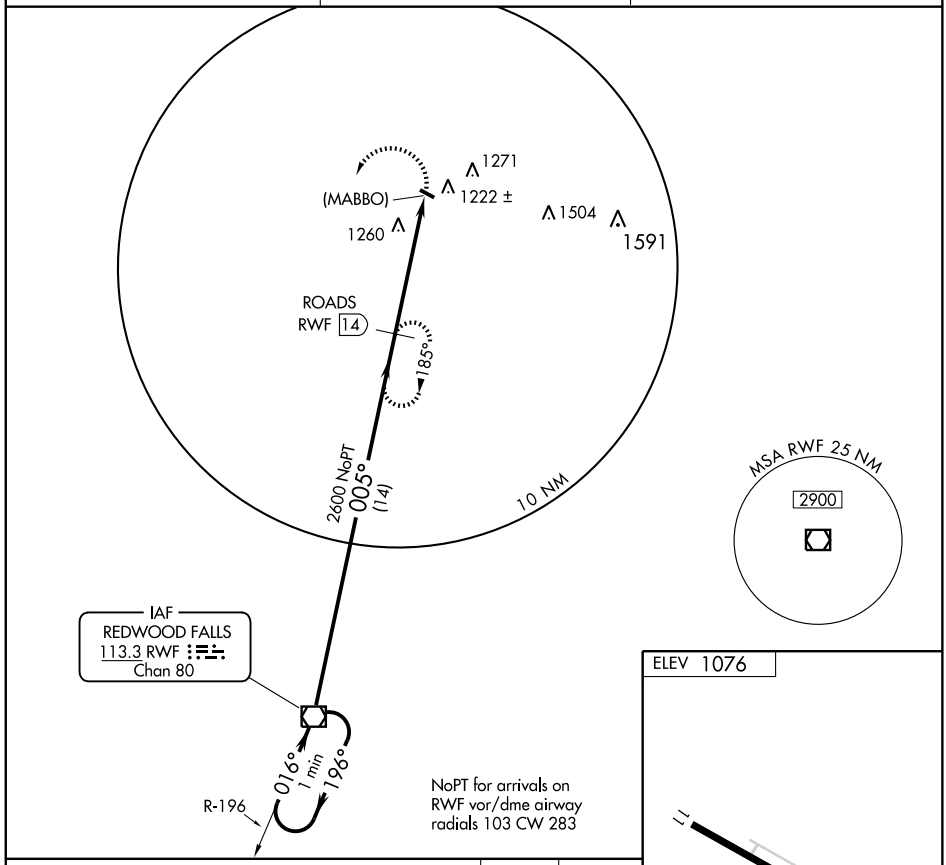
VOR/DME RWF 113.3 Chan 80	APP CRS 005°	Rwy Idg N/A TDZE N/A Apt Elev 1076

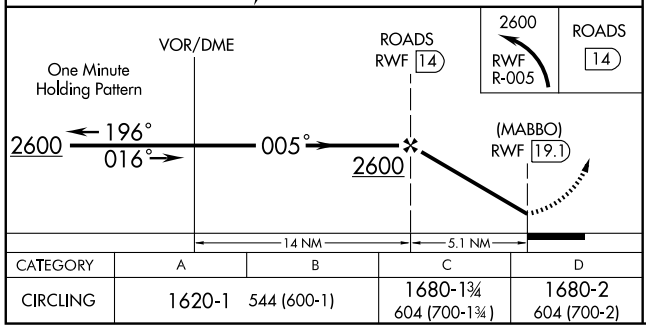
T
NA

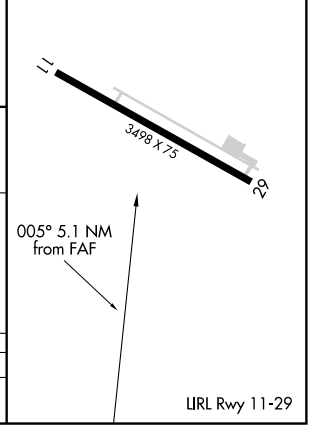
Use Redwood Falls, MN altimeter setting.

MISSED APPROACH: Climbing left turn to 2600 via RWF R-005 to ROADS 14 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.275	127.1 290.2	122.8 (CTAF)







CATEGORY	A	B	C	D
CIRCLING	1620-1	544 (600-1)	1680-1¾ 604 (700-1¾)	1680-2 604 (700-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

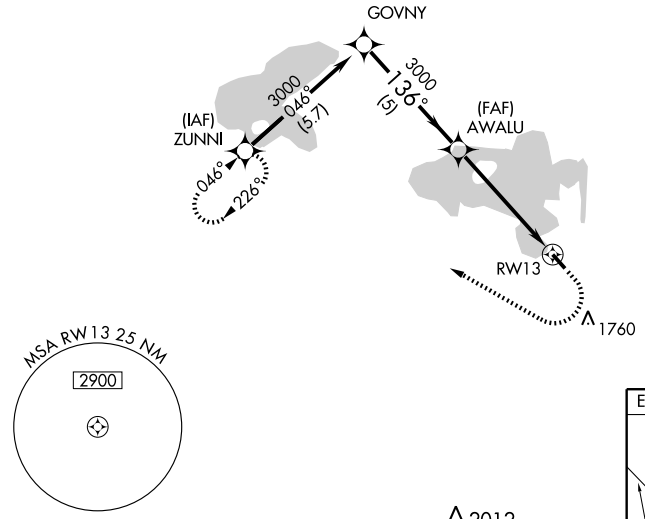
APP CRS	Rwy Idg	4001
136°	TDZE	1311
	Apt Elev	1311

GPS RWY 13
ORR RGNL(ORB)

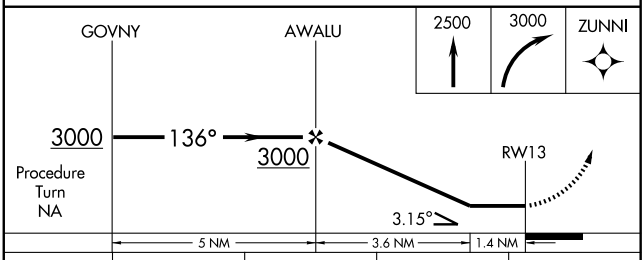
T
NA

MISSED APPROACH: Climb to 2500 then climbing right turn to 3000 direct ZUNNI WP and hold.

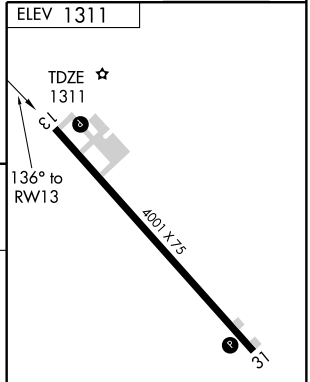
AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
118.325	120.9 377.1	121.725	122.8 (CTAF) L



2012



CATEGORY	A	B	C	D
S-13	1760-1 449 (500-1)		1760-1¼ 449 (500-1¼)	1760-1½ 449 (500-1½)
CIRCLING	1880-1 569 (600-1)	1900-1 589 (600-1)	1900-1½ 589 (600-1½)	2120-2½ 809 (900-2½)



REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB ORB 341	APP CRS 142°	Rwy Idg 4001 TDZE 1311 Apt Elev 1311

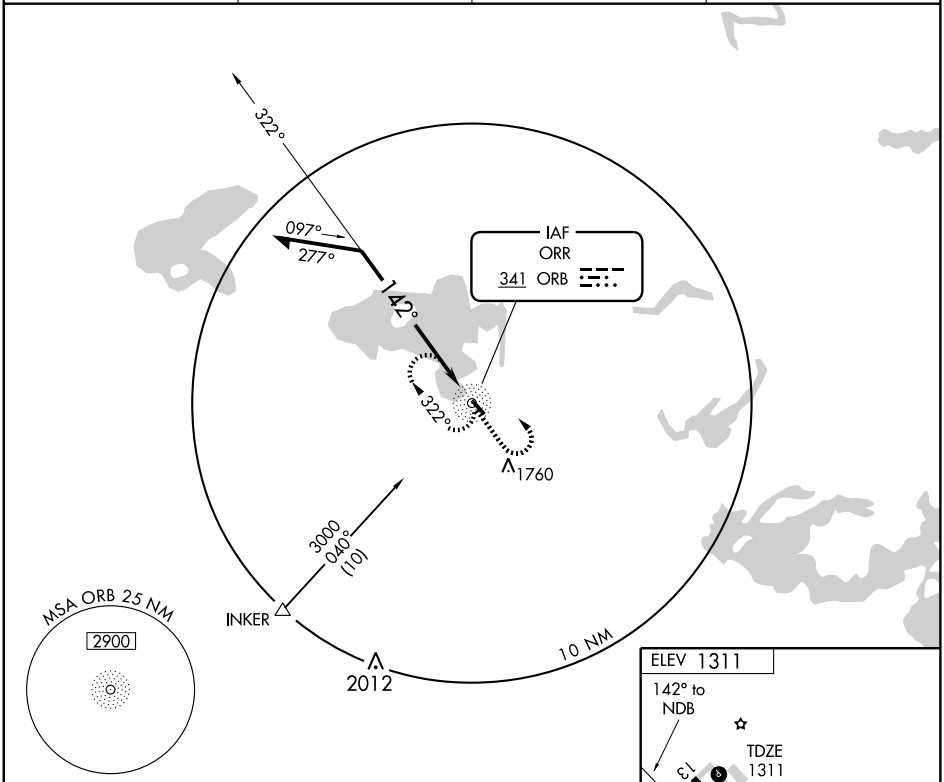
NDB RWY 13

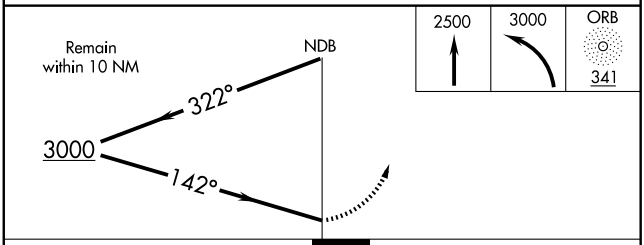
ORR RGNL (ORB)

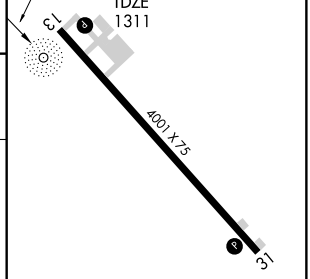
T
NA

MISSED APPROACH: Climb to 2500 then climbing left turn to 3000 direct ORB NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
118.325	120.9 377.1	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-13	2000-1	689 (700-1)	2000-2 689 (700-2)	2000-2¼ 689 (700-2¼)
CIRCLING	2000-1	689 (700-1)	2000-2 689 (700-2)	2120-2½ 809 (900-2½)

REIL Rwys 13 and 31 L
MIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3417
344°	TDZE	1097
	Apt Elev	1100

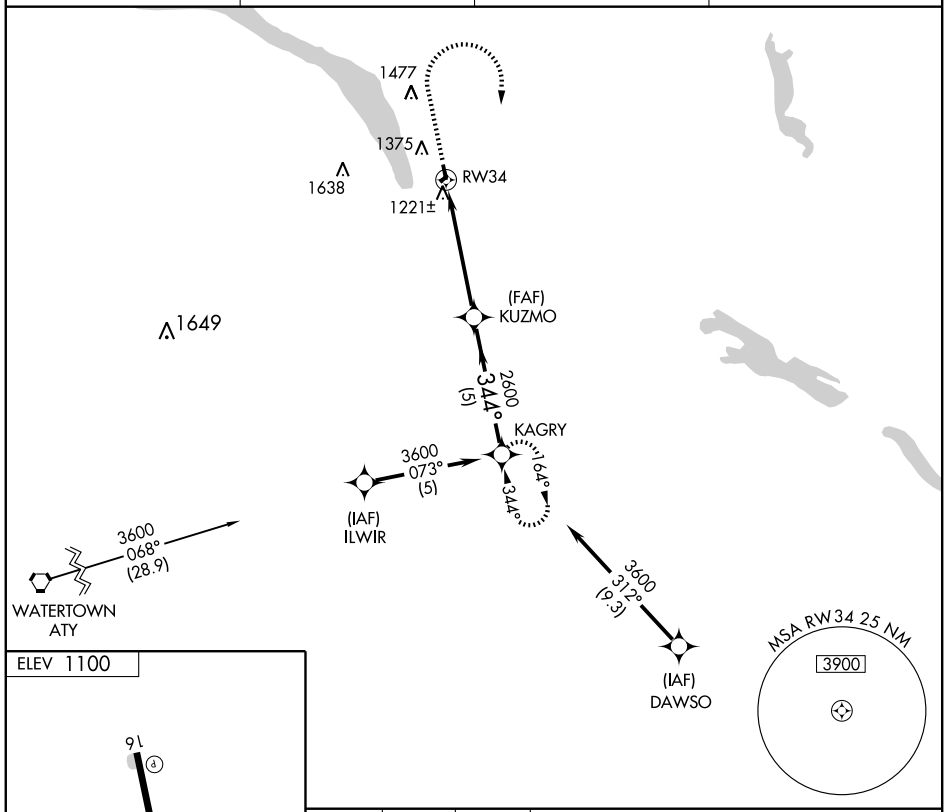
GPS RWY 34

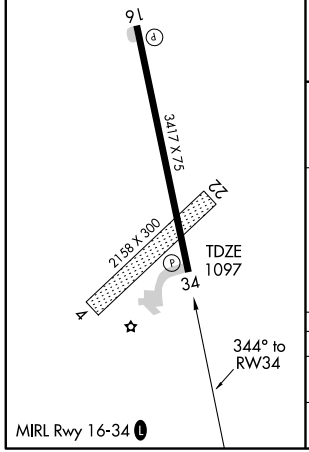
ORTONVILLE MUNI-MARTINSON FIELD (VVV)

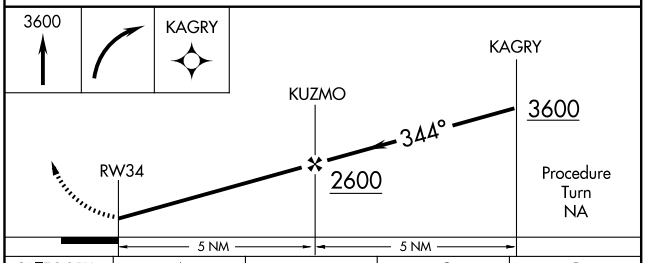
T
NA

MISSED APPROACH: Climb to 3600 then right turn direct KAGRY WP and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
332.0	128.5 306.2	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-34	1540-1 443 (500-1)		1540-1¼ 443 (500-1¼)	NA
CIRCLING	1740-1 640 (700-1)		1740-1¾ 640 (700-1¾)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB VVV 332	APP CRS 355°	Rwy Idg 3417 TDZE 1097 Apt Elev 1100

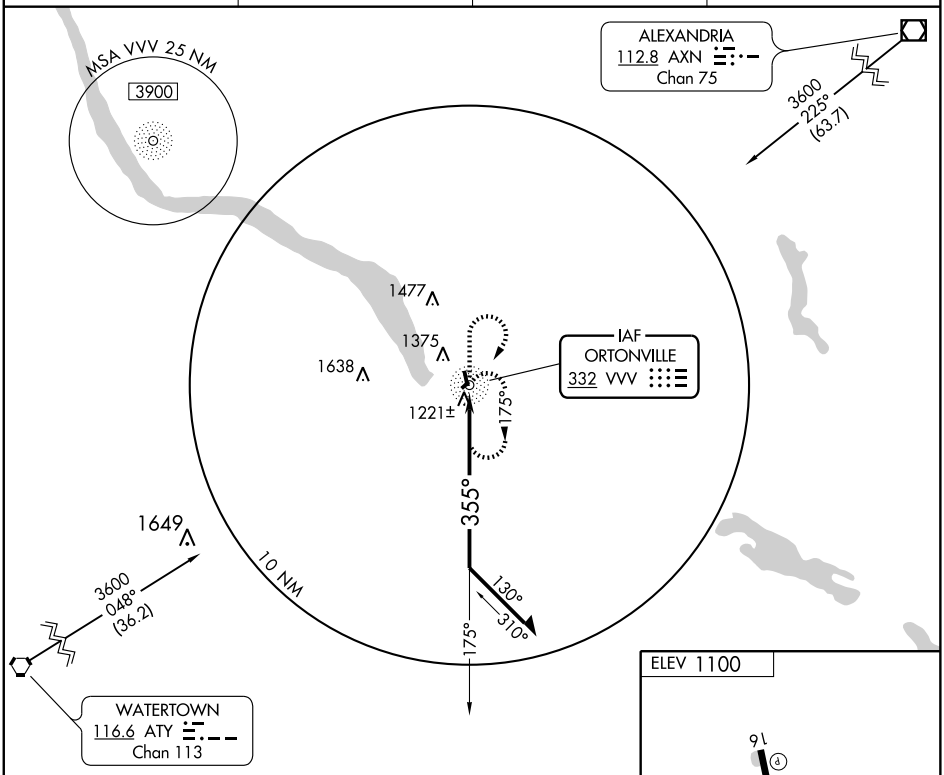
NDB RWY 34

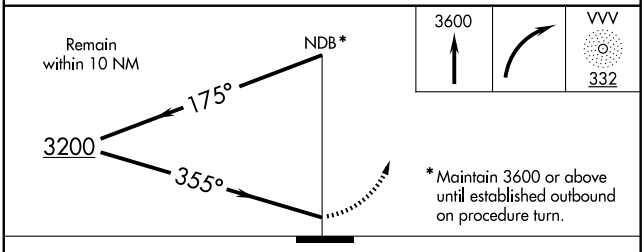
ORTONVILLE MUNI-MARTINSON FIELD (VVV)

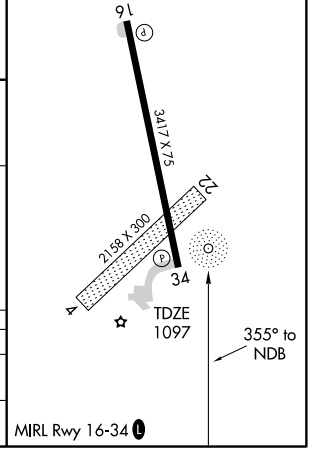
NA

MISSED APPROACH: Climb to 3600 then right turn direct VVV NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
332.0	128.5 306.2	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-34	1660-1	563 (600-1)	1660-1½ 563 (600-1½)	NA
CIRCLING	1740-1	640 (700-1)	1740-1¾ 640 (700-1¾)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-OWA	APP CRS	Rwy Idg	5500
109.55	302°	TDZE	1145
		Apt Elev	1145

ILS RWY 30

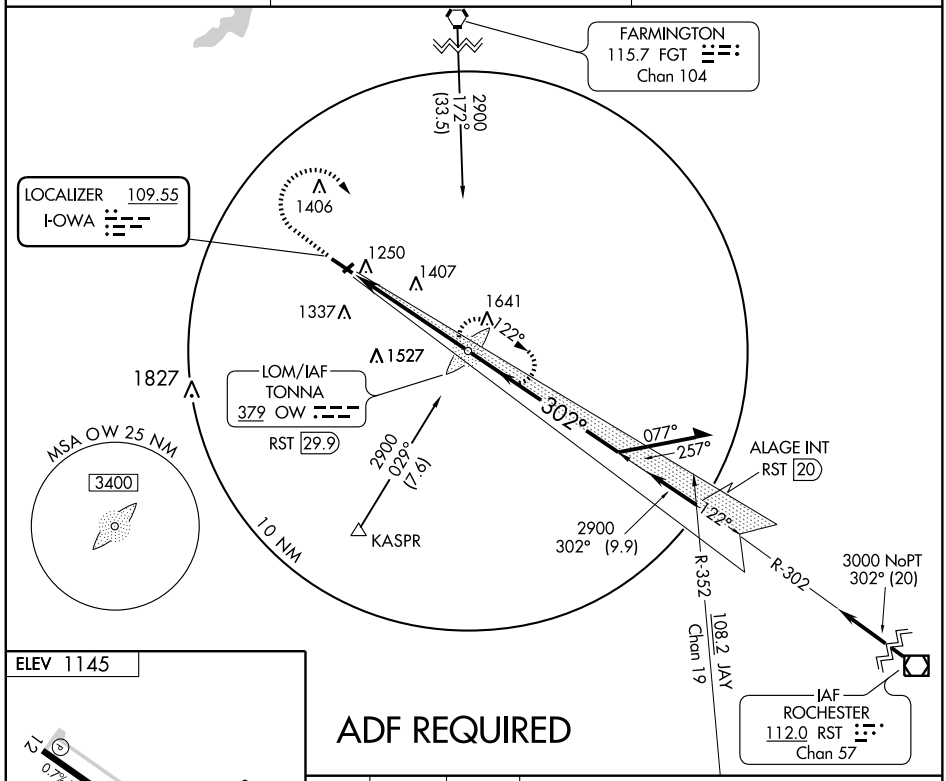
OWATONNA DEGNER RGNL (OWA)

NA

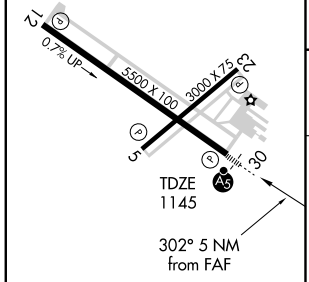
MALSR

MISSED APPROACH Climb to 2000 then climbing right turn to 2900 direct TONNA LOM and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
128.325	119.8 251.125	122.7 (CTAF) L



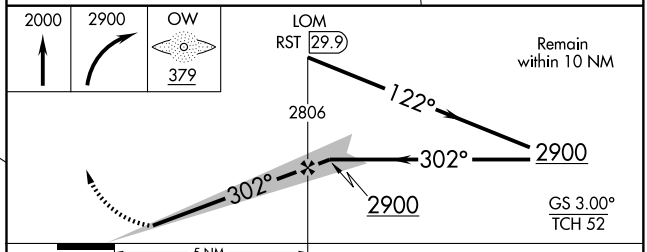
ELEV 1145



MIRL Rwy 5-23 L
REIL Rwys 5, 12 and 23 L
REIL Rwy 30
HIRL Rwy 12-30 L

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

ADF REQUIRED



CATEGORY	A	B	C	D
S-ILS 30	1345-½ 200 (200-½)			
S-LOC 30	1680-½ 535 (600-½)		1680-1 535 (600-1)	1680-1¼ 535 (600-1¼)
CIRCLING	1680-1 535 (600-1)		1720-1½ 575 (600-1½)	1720-2 575 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

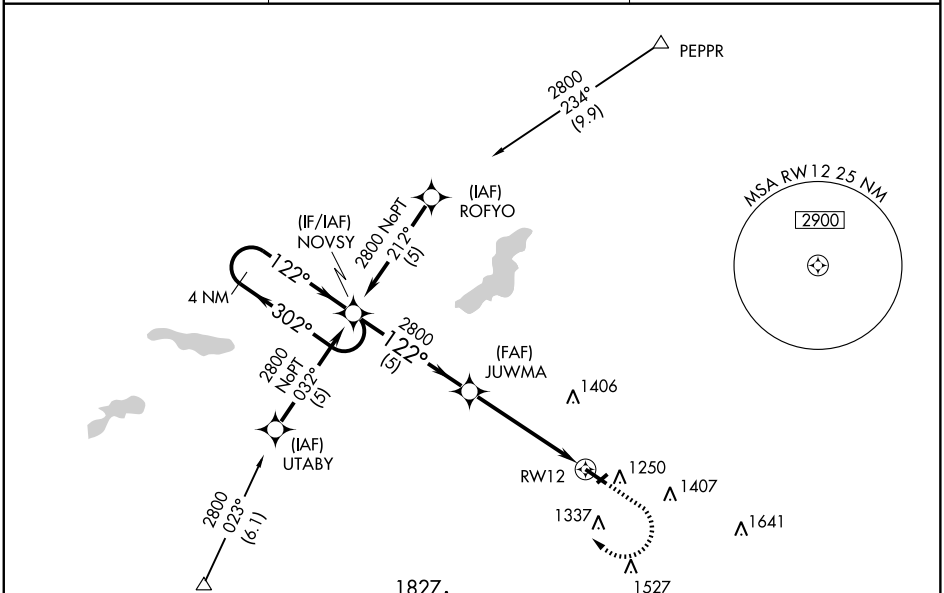
APP CRS	Rwy Idg	5500
122°	TDZE	1110
	Apt Elev	1145

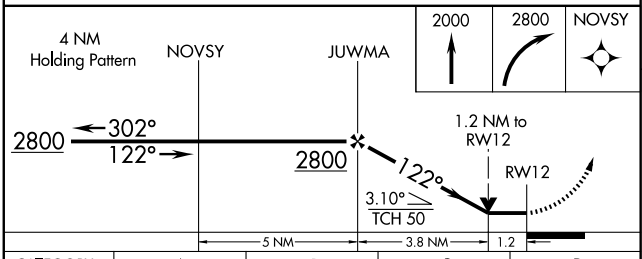
RNAV (GPS) RWY 12
OWATONNA DEGNER RGNL (OWA)

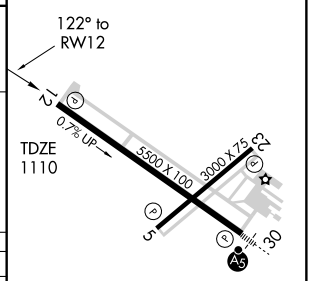
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 2000 then climbing right turn to 2800 direct NOVSY WP and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
128.325	119.8 251.125	122.7 (CTAF) L







CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/ VNAV DA	NA			
LNAV MDA	1540-1 430 (400-1)		1540-1¼ 430 (400-1¼)	1540-1½ 430 (400-1½)
CIRCLING	1620-1 475 (500-1)	1700-1 555 (600-1)	1700-1½ 555 (600-1½)	1720-2 575 (600-2)

MIRL Rwy 5-23 L
REIL Rwys 5, 12 and 23 L
REIL Rwy 30
HIRL Rwy 12-30 L

NC-1. 03 JUN 2010 to 01 JUL 2010

OWATONNA, MINNESOTA

AL-5426 (FAA)

VOR/DME FOW	APP CRS	Rwy Idg	5500
111.2	313°	TDZE	1145
Chan 49		Apt Elev	1145

VOR/DME RWY 30

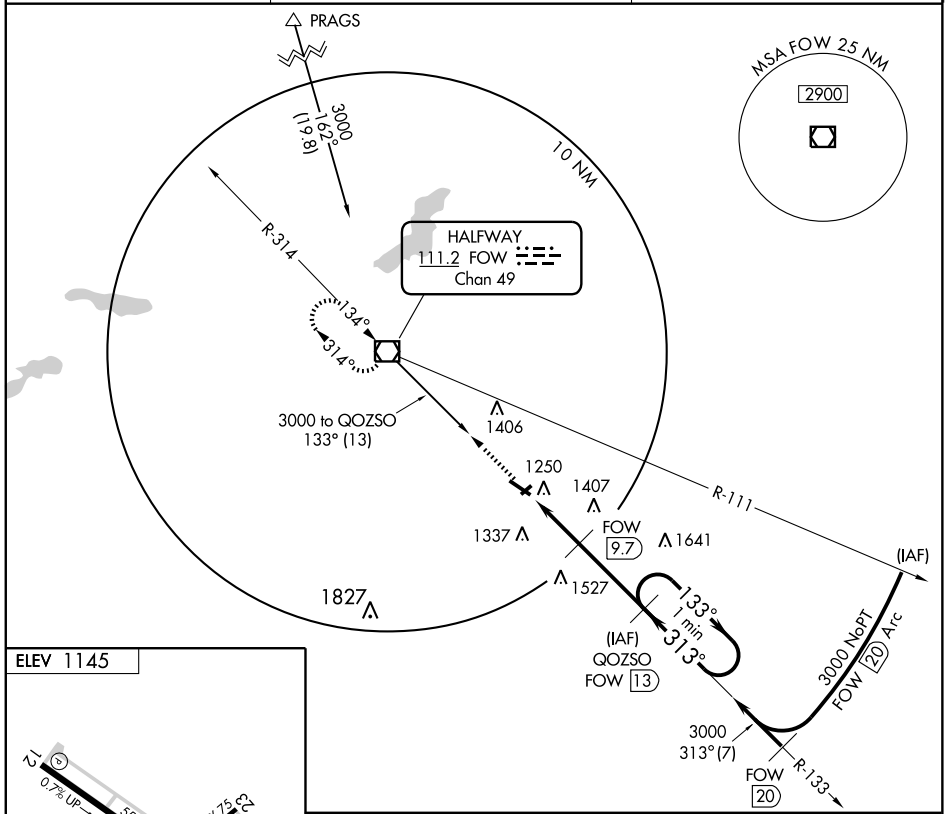
OWATONNA DEGNER RGNL (OWA)

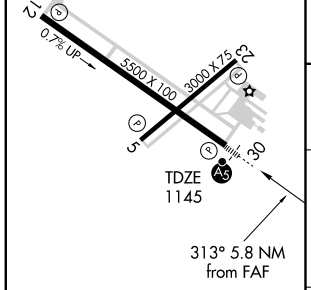
NA

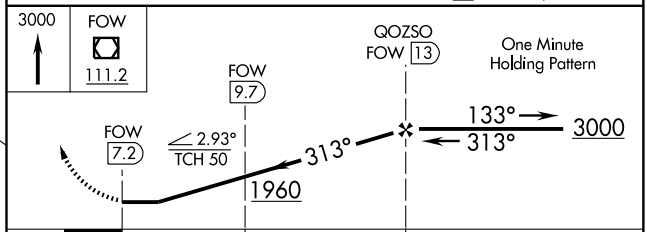
MALSR

MISSED APPROACH: Climb to 3000 direct FOW VOR/DME and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
128.325	119.8 251.125	122.7 (CTAF) L







CATEGORY	A	B	C	D
S-30	1700-1 555 (600-1)		1700-1½ 555 (600-1½)	1700-1¾ 555 (600-1¾)
CIRCLING	1700-1 555 (600-1)		1700-1½ 555 (600-1½)	1720-2 575 (600-2)

MIRL Rwy 5-23 L
REIL Rwys 5, 12 and 23 L
REIL Rwy 30
HIRL Rwy 12-30 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME FOW	APP CRS	Rwy Idg	5500
111.2	134°	TDZE	1110
Chan 49		Apt Elev	1145

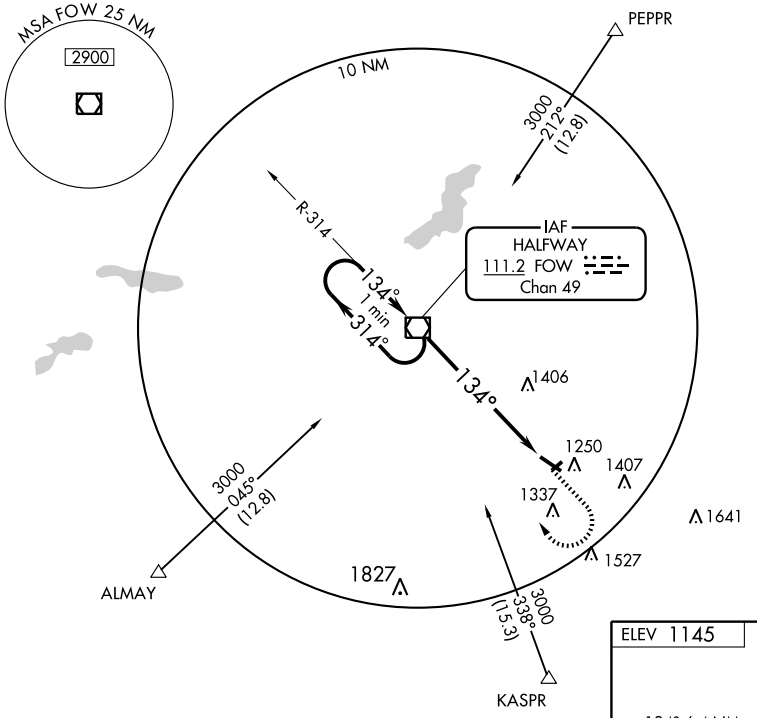
VOR RWY 12

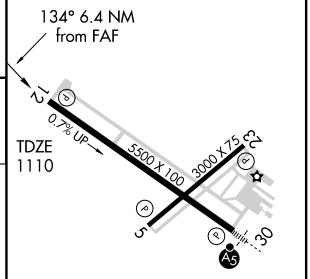
OWATONNA DEGNER RGNL (OWA)

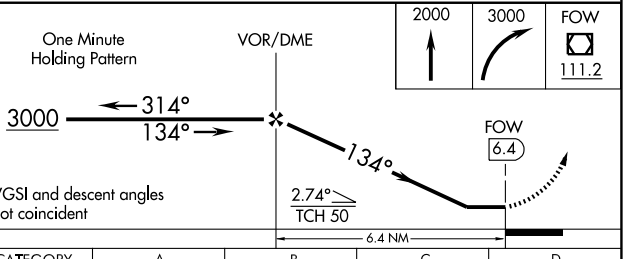
T
ANA

MISSED APPROACH Climb to 2000 then climbing right turn to 3000 direct FOW VOR/DME and hold.

AWOS-3	ROCHESTER APP CON ★	UNICOM
128.325	119.8 251.125	122.7 (CTAF) L







MIRL Rwy 5-23 L
REIL Rwys 5, 12 and 23 L
REIL Rwy 30
HIRL Rwy 12-30 L

CATEGORY	A	B	C	D
S-12	1560-1	450 (500-1)	1560-1¼ 450 (500-1¼)	1560-1½ 450 (500-1½)
CIRCLING	1620-1 475 (500-1)	1700-1 555 (600-1)	1700-1½ 555 (600-1½)	1720-2 575 (600-2)

FAF to MAP 6.4 NM

Knots	60	90	120	150	180
Min:Sec	6:24	4:16	3:12	2:34	2:08

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-PKD	APP CRS	Rwy Idg	5498
110.9	311°	TDZE	1443
		Apt Elev	1443

ILS or LOC RWY 31

PARK RAPIDS MUNI-KONSHOK FIELD (PKD)

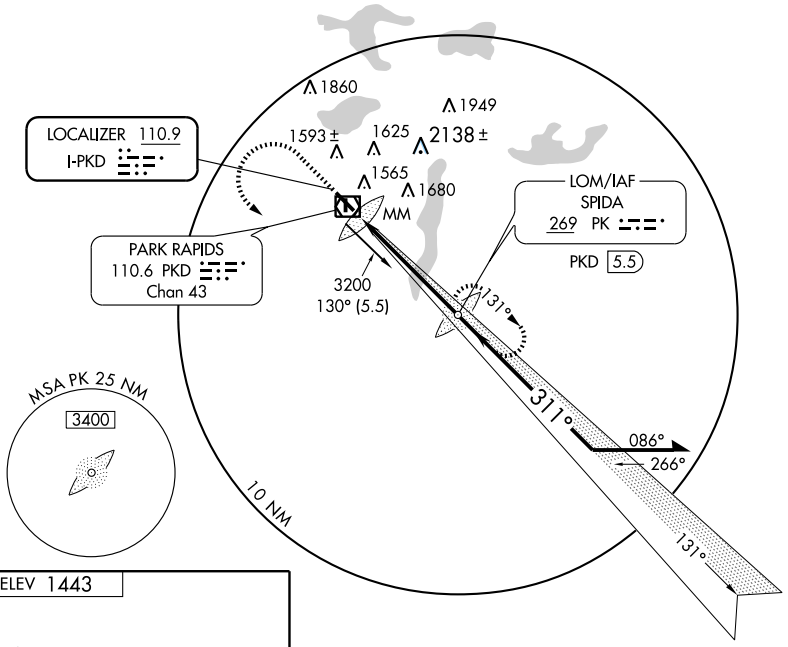
NA ADF required.

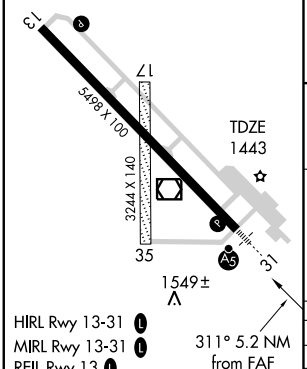
MALSR

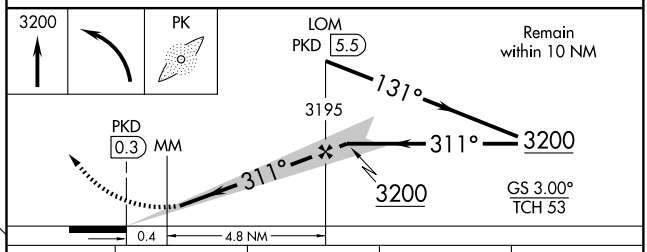
MISSED APPROACH: Climb to 3200 then left turn direct Spida LOM and hold.

ASOS	PRINCETON RADIO	UNICOM
110.6	122.1R	123.0 (CTAF) L

ADF or DME REQUIRED







FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

CATEGORY	A	B	C	D
S-ILS 31	1643-½ 200 (200-½)			
S-LOC 31	1800-½ 357 (400-½)			1800-¾ 357 (400-¾)
CIRCLING	1920-1 477 (500-1)		1920-1½ 477 (500-1½)	2000-2 557 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

LOM PK	APP CRS	Rwy Idg	5498
269	311°	TDZE	1443
		Apt Elev	1443

NDB or GPS RWY 31

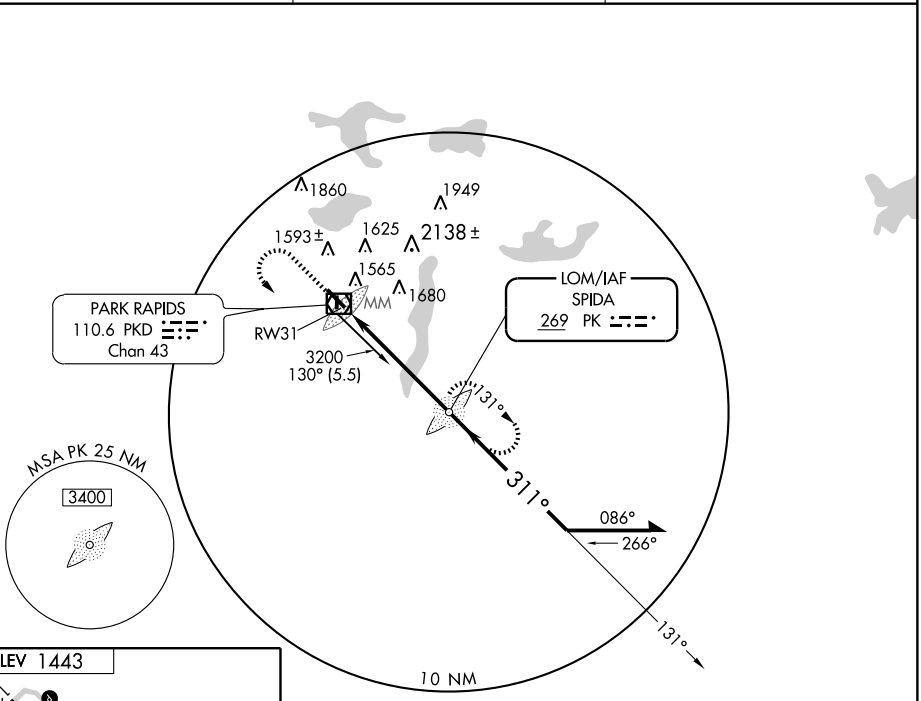
PARK RAPIDS MUNI-KONSHOK FIELD (PKD)

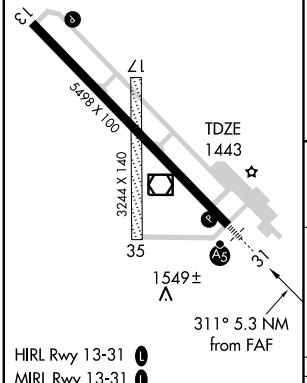
NA

MALSR

MISSED APPROACH: Climb to 3200, then left turn direct PK LOM and hold.

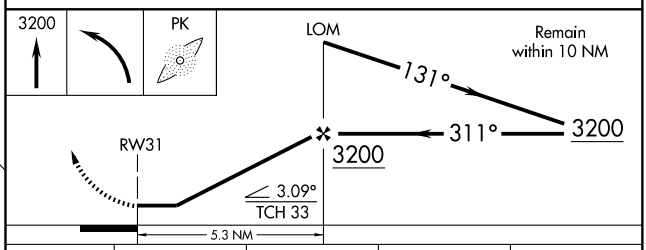
ASOS	PRINCETON RADIO	UNICOM
110.6	122.1R	123.0 (CTAF) L





HIRL Rwy 13-31 L
MIRL Rwy 13-31 L
REIL Rwy 13 L

FAF to MAP 5.3 NM					
Knots	60	90	120	150	180
Min:Sec	5:18	3:32	2:39	2:07	1:46



CATEGORY	A	B	C	D
S-31	1860-¾ 417 (500-¾)			1860-1 417 (500-1)
CIRCLING	1920-1 477 (500-1)		1920-1½ 477 (500-1½)	2000-2 557 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

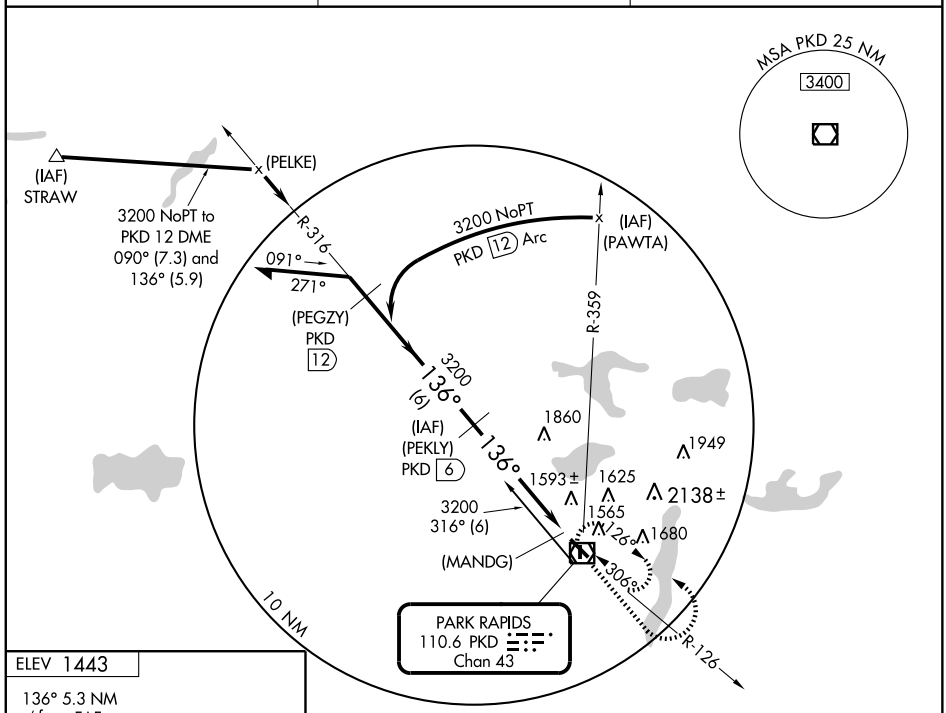
VOR/DME PKD	APP CRS	Rwy Idg	5498
110.6	136°	TDZE	1443
Chan 43		Apt Elev	1443

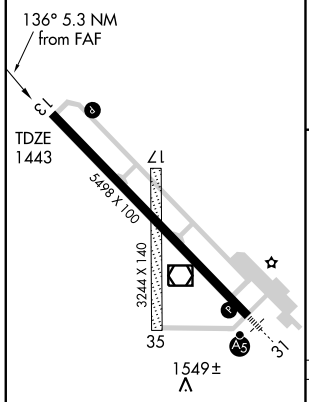
VOR/DME or GPS RWY 13

PARK RAPIDS MUNI-KONSHOK FIELD (PKD)

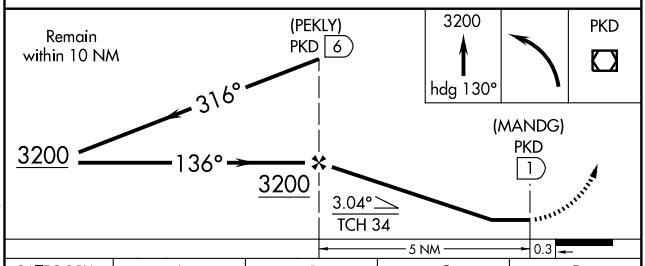
MISSED APPROACH: Climb to 3200 via heading 130° then left turn direct PKD VOR/DME and hold.

ASOS	PRINCETON RADIO	UNICOM
110.6	122.1R	123.0 (CTAF) L





HIRL Rwy 13-31 L
MIRL Rwy 13-31 L
REIL Rwy 13 L



CATEGORY	A	B	C	D
S-13	1860-1 417 (500-1)		1860-1¼ 417 (500-1¼)	
CIRCLING	1920-1 477 (500-1)		1920-1½ 477 (500-1½)	2000-2 557 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

PARK RAPIDS, MINNESOTA

AL-5298 (FAA)

VOR/DME PKD	APP CRS	Rwy Idg	5498
110.6	306°	TDZE	1443
Chan 43		Apt Elev	1443

VOR RWY 31

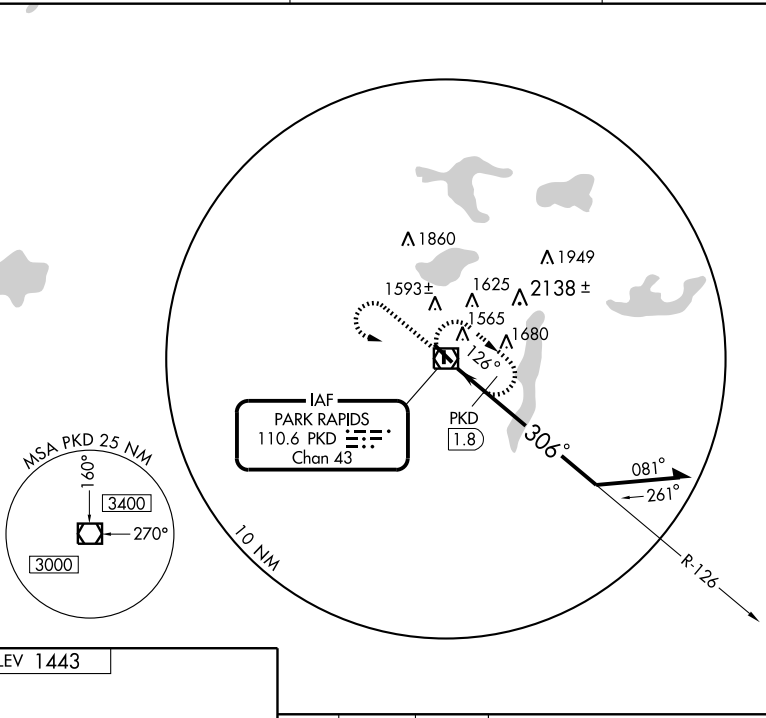
PARK RAPIDS MUNI-KONSHOK FIELD (PKD)

For inoperative MALSR, increase Cat. D S-31. DME minimums visibility ¼ mile.

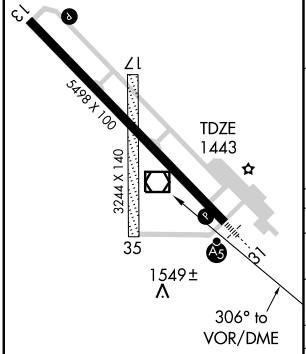
MALSR

MISSED APPROACH: Climb to 3200, then left turn direct PKD VOR/DME and hold.

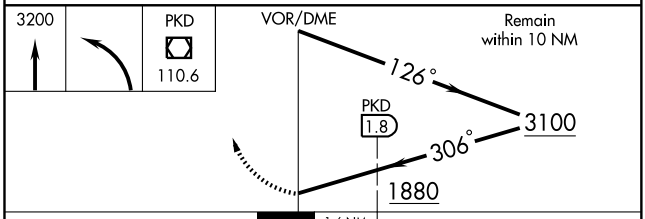
ASOS	PRINCETON RADIO	UNICOM
110.6	122.1R	123.0 (CTAF) L



ELEV 1443



HIRL Rwy 13-31 L
MIRL Rwy 13-31 L
REIL Rwy 13 L



CATEGORY	A	B	C	D
S-31	1880-½ 437 (500-½)		1880-¾ 437 (500-¾)	1800-1 437 (500-1)
CIRCLING	1920-1 477 (500-1)		1920-1½ 477 (500-1½)	2000-2 557 (600-2)
DME MINIMUMS				
S-31	1820-½ 377 (400-½)			1820-1 377 (400-1)
CIRCLING	1920-1 477 (500-1)		1920-1½ 477 (500-1½)	2000-2 557 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4100
305°	TDZE	1373
	Apt Elev	1376

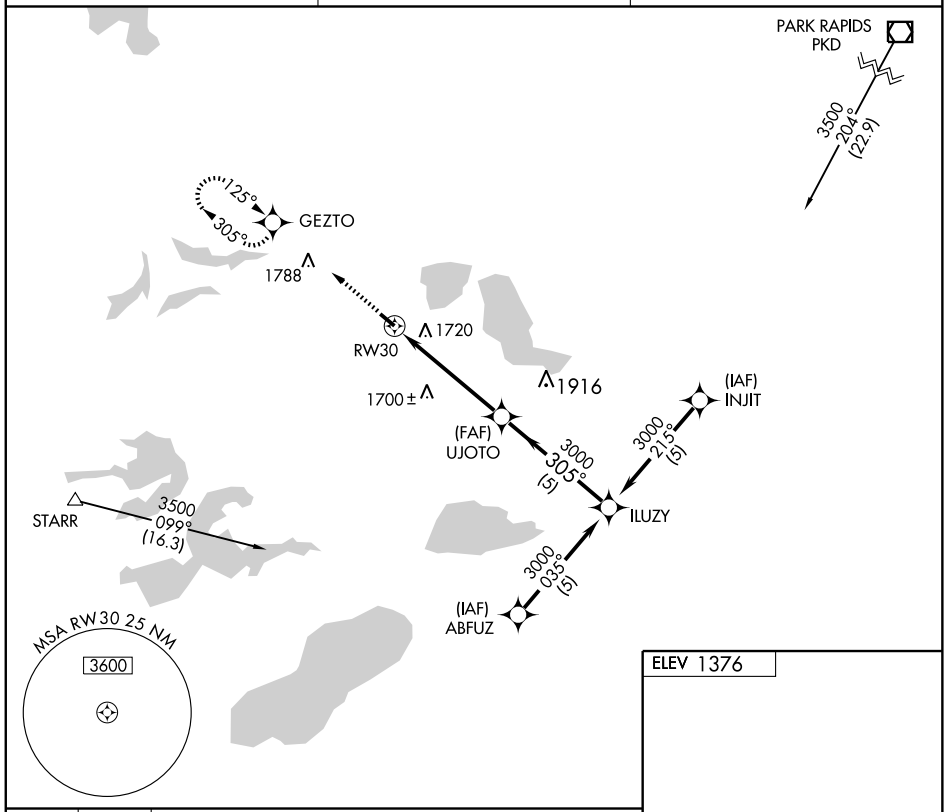
GPS RWY 30
PERHAM MUNI (16D)

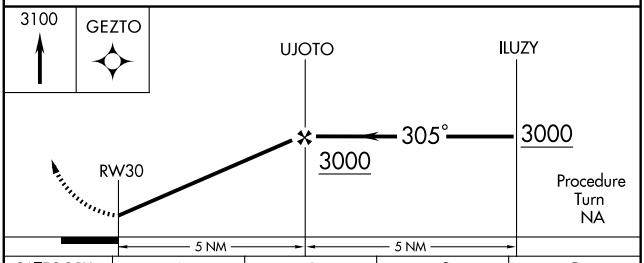
T
A NA

Use Detroit Lakes altimeter setting.

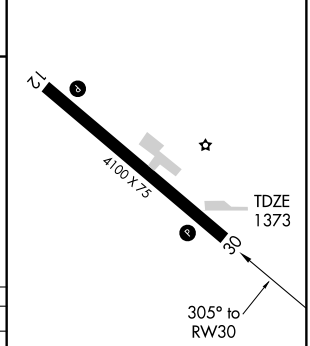
MISSED APPROACH: Climb to 3100 direct GEZTO WP and hold.

MINNEAPOLIS CENTER	GCO	CTAF
126.1 269.2	121.725	122.9 L





CATEGORY	A	B	C	D
S-30	2080-1	707 (800-1)	NA	
CIRCLING	2120-1 744 (800-1)	2120-1¼ 744 (800-1¼)	NA	



MIRL Rwy 12-30 L
REIL Rwy 12-30 L

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB PWC	APP CRS	Rwy Idg	3000
330	340°	TDZE	1295
		Apt Elev	1295

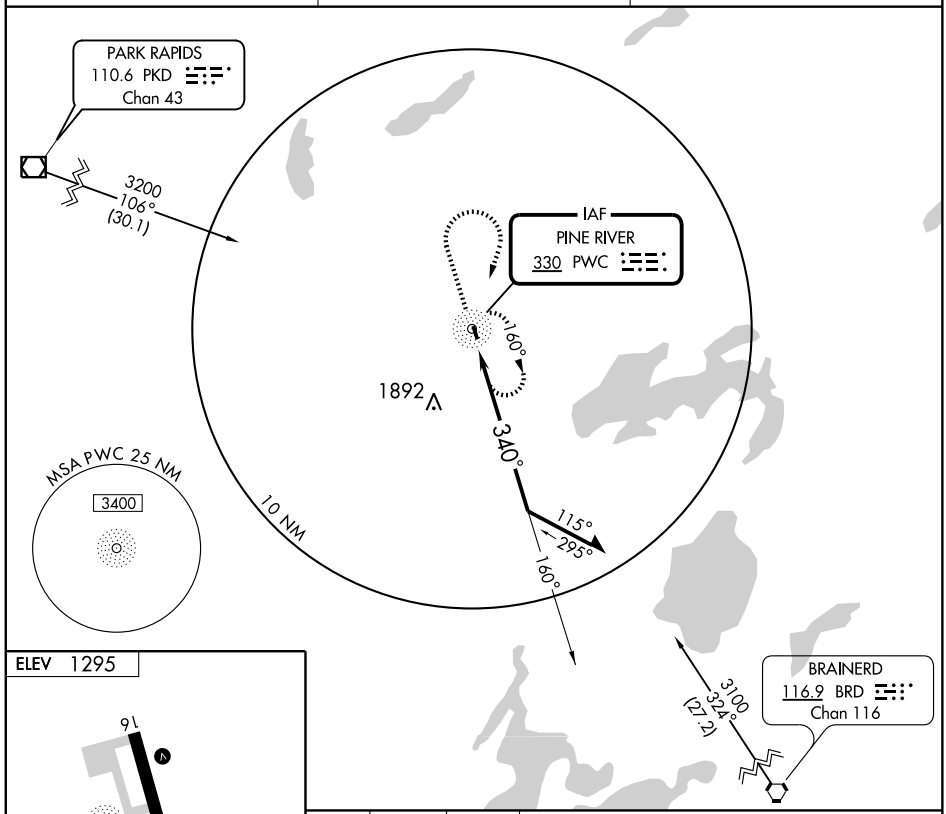
NDB RWY 34

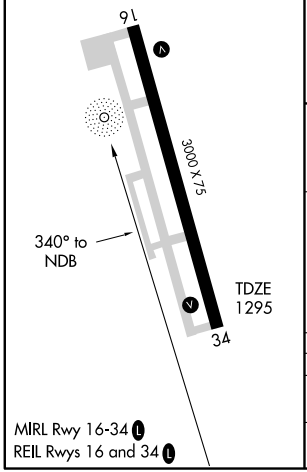
PINE RIVER RGNL (PWC)

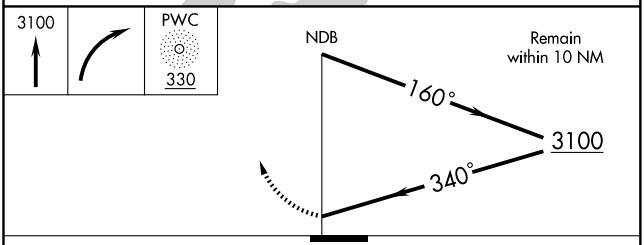
NA

MISSED APPROACH: Climb to 3100 then right turn direct PWC NDB and hold.

ASOS-3	MINNEAPOLIS CENTER	CTAF
118.525	118.05 239.0	122.9 L







CATEGORY	A	B	C	D
S-34	2060-1 765 (800-1)	2060-1¼ 765 (800-1¼)	2060-2¼ 765 (800-2¼)	NA
CIRCLING	2060-1 765 (800-1)	2060-1¼ 765 (800-1¼)	2060-2¼ 765 (800-2¼)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS		
340°	Rwy Idg	3000
	TDZE	1295
	Apt Elev	1295

RNAV (GPS) RWY 34

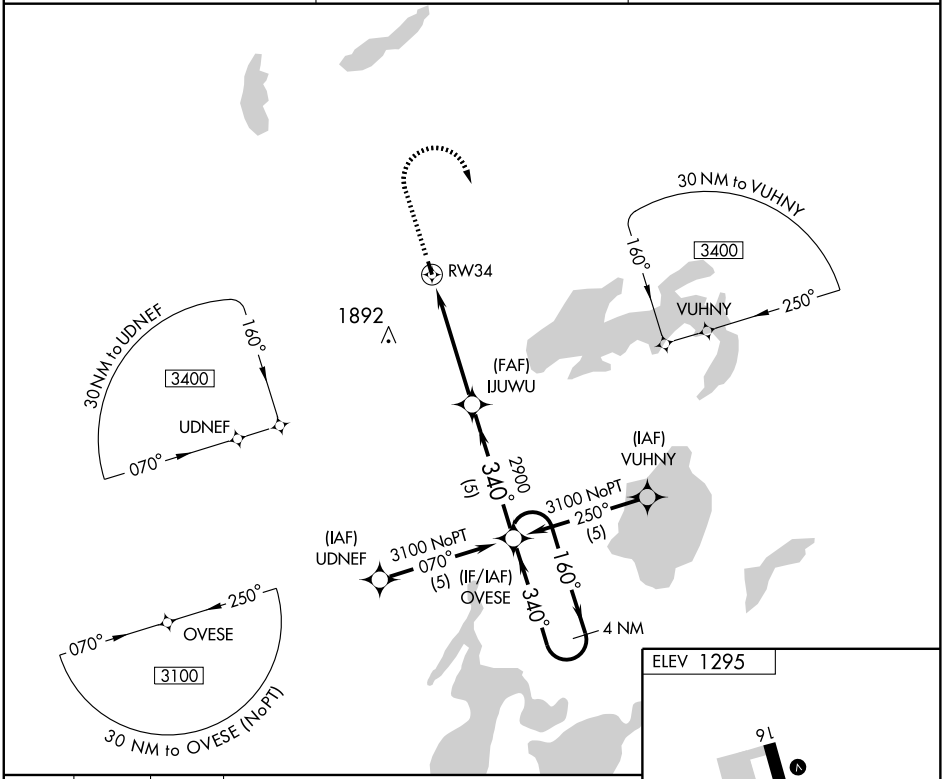
PINE RIVER RGNL (PWC)

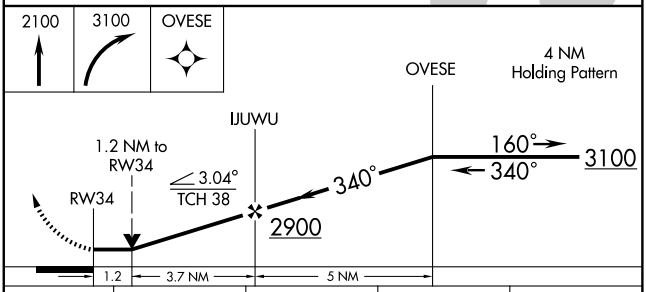
NA

GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

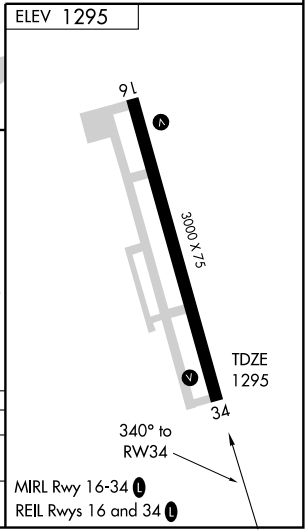
MISSED APPROACH: Climb to 2100 then climbing right turn to 3100 direct OVESE WP and hold.

ASOS-3	MINNEAPOLIS CENTER	CTAF
118.525	118.05 239.0	122.9 L





CATEGORY	A	B	C	D
LNAV MDA	1700-1	405 (500-1)	1700-1¼ 405 (500-1¼)	NA
CIRCLING	1760-1	465 (500-1)	1760-1½ 465 (500-1½)	NA



NC-1. 03 JUN 2010 to 01 JUL 2010

NDB PFT 342	APP CRS 315°	Rwy Idg 3298 TDZE 1078 Apt Elev 1078

NDB or GPS RWY 33

PINECREEK/ PINEY PINECREEK BORDER (48Y)

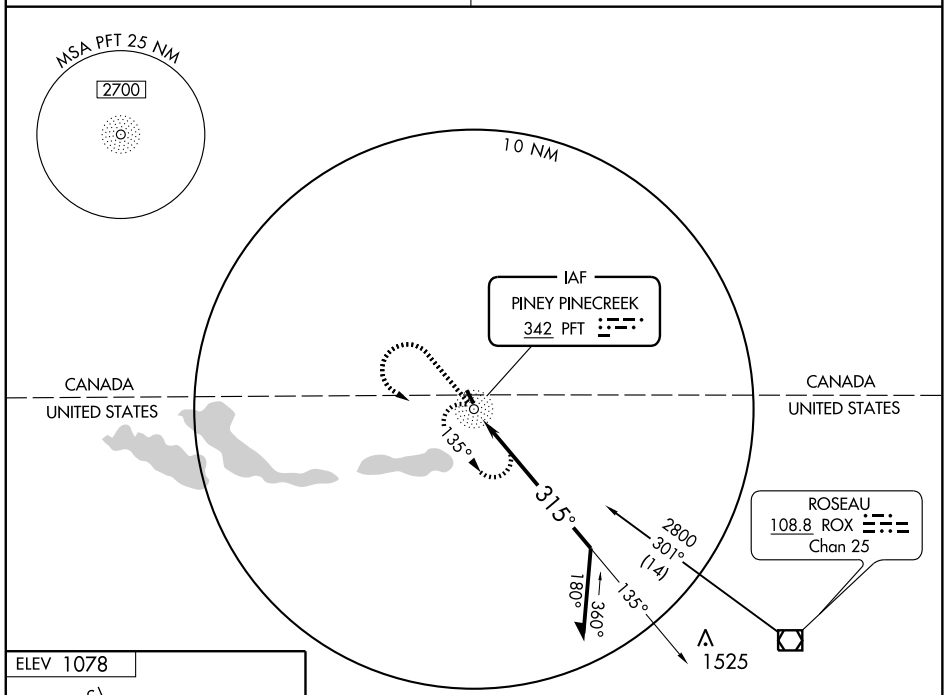
NA

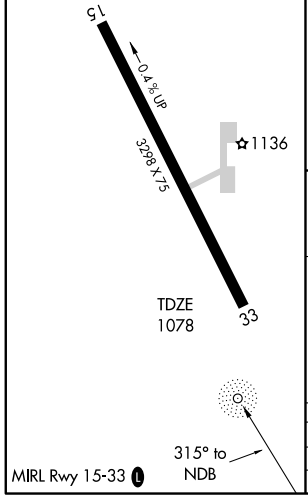
Use Roseau, MN altimeter setting.

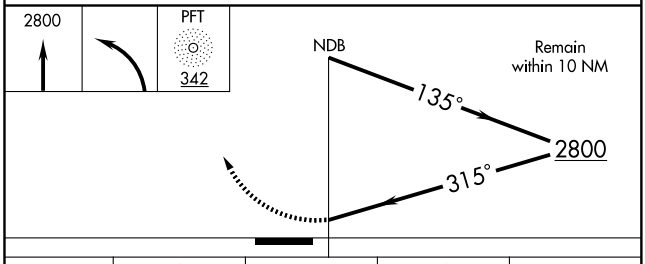
MISSED APPROACH: Climb to 2800 then left turn direct PFT NDB and hold.

MINNEAPOLIS CENTER
134.75 251.1

UNICOM
122.8 (CTAF) L







CATEGORY	A	B	C	D
S-33	1600-1	522 (600-1)	NA	
CIRCLING	1600-1	522 (600-1)	NA	

NDB/DME PQN	APP CRS	Rwy Idg	4302
284	005°	TDZE	1734
DME Chan 28 (109.1)		Apt Elev	1736

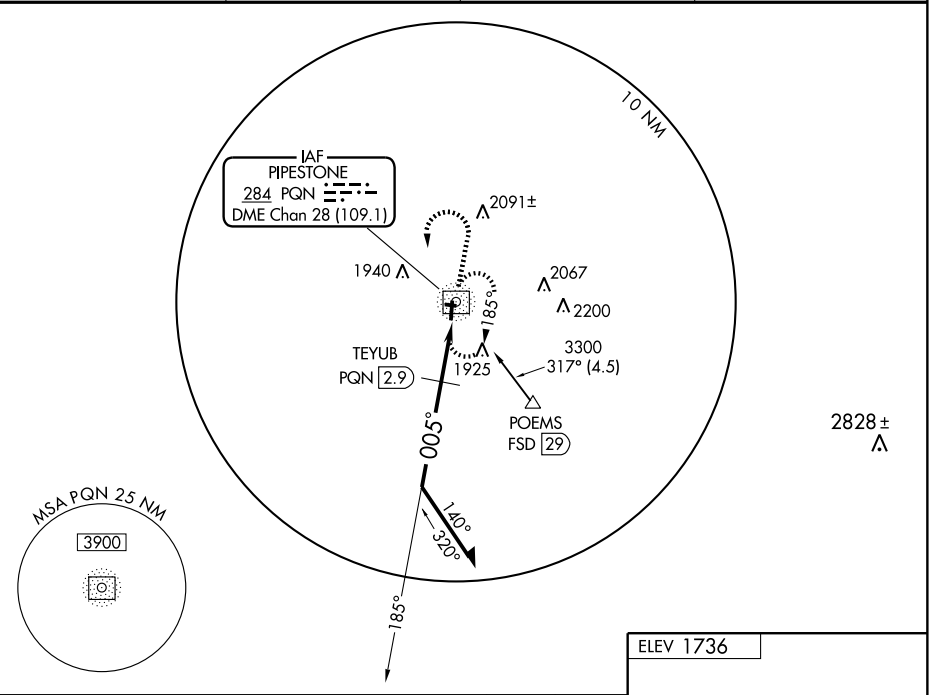
NDB RWY 36

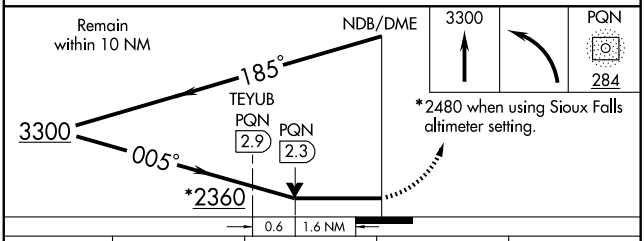
PIPESTONE MUNI (PQN)

When local altimeter setting not received, use Sioux Falls altimeter setting and increase all MDAs 120 feet, S-36 Cat. B visibility ¼ mile, Cat. C visibility ½ mile and TEYUB FIX MINIMUMS Cat. C visibility ¼ mile.
VDP NA with Sioux Falls altimeter setting.

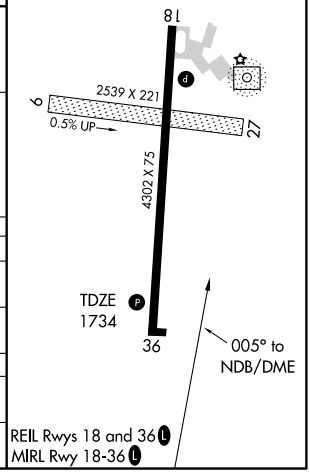
MISSED APPROACH: Climb to 3300 then left turn direct PQN NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
118.375	132.05 317.4	121.725	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-36	2360-1	626 (700-1)	2360-1¾ 626 (700-1¾)	NA
CIRCLING	2360-1	624 (700-1)	2360-1¾ 624 (700-1¾)	NA
TEYUB FIX MINIMUMS				
S-36	2280-1	546 (600-1)	2280-1½ 546 (600-1½)	NA
CIRCLING	2280-1	544 (600-1)	2280-1½ 544 (600-1½)	NA



NC-1. 03 JUN 2010 to 01 JUL 2010

PIPESTONE, MINNESOTA AL-5688 (FAA)

APP CRS	Rwy Idg	4302
163°	TDZE	1736
	Apt Elev	1736

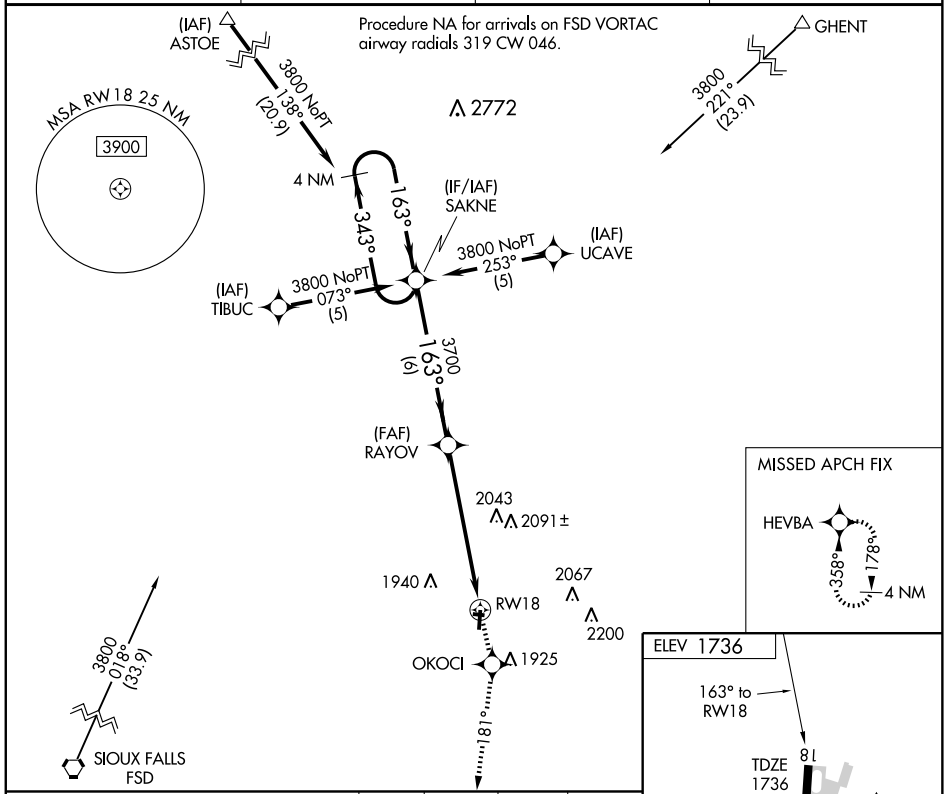
RNAV (GPS) RWY 18

PIPESTONE MUNI (PQN)

DME/DME RNP -0.3 NA.
When local altimeter setting not received, use Sioux Falls altimeter setting and increase all MDAs 120 feet and Cat C visibility ¼ mile. VDP NA with Sioux Falls altimeter setting.

MISSED APPROACH: Climb to 3300 direct OKOCI and via 181° track to HEVBA and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
118.375	132.05 317.4	121.725	122.8 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	2180-1 444 (500-1)		2180-1¼ 444 (500-1¼)	NA
CIRCLING	2180-1 444 (500-1)	2200-1 464 (500-1)	2280-1½ 544 (600-1½)	NA

MIRL Rwy 18-36 L
REIL Rwys 18 and 36 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4302
358°	TDZE	1734
	Apt Elev	1736

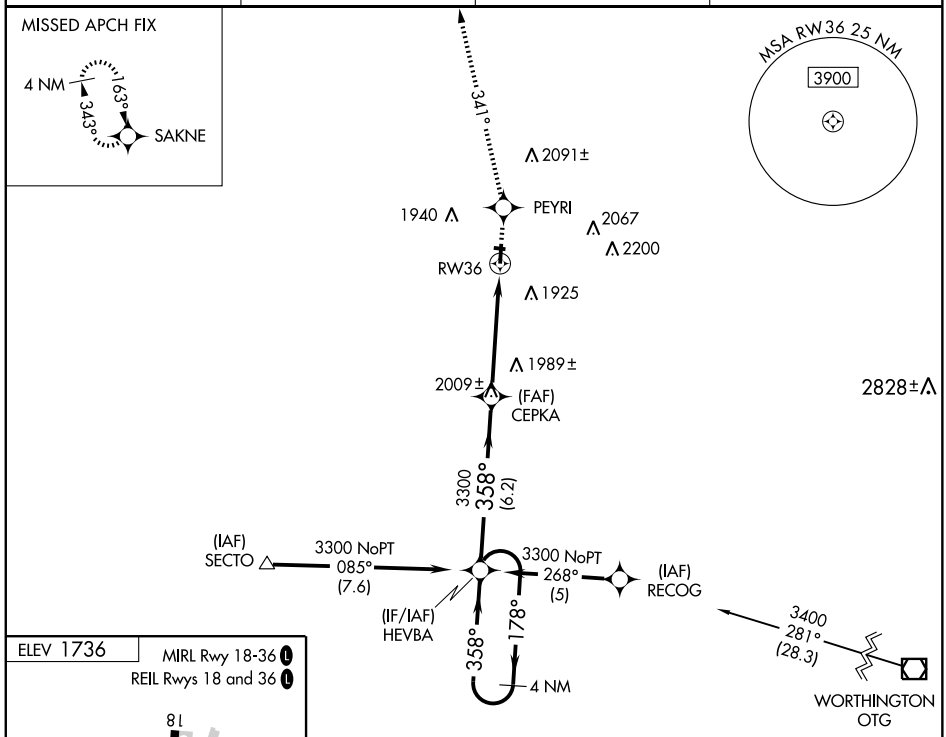
RNAV (GPS) RWY 36

PIPESTONE MUNI (PQN)

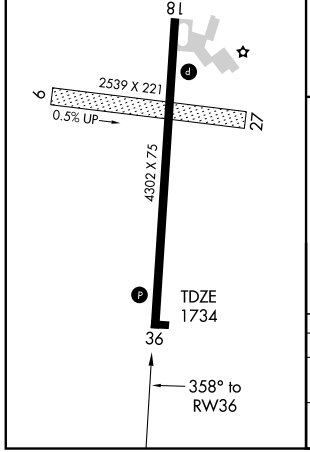
DME/DME RNP -0.3 NA.
When local altimeter setting not received, use Sioux Falls altimeter setting and increase alll MDAs 120 feet and Cat. C visibilities ¼ mile.
VDP NA with Sioux Falls altimeter setting.

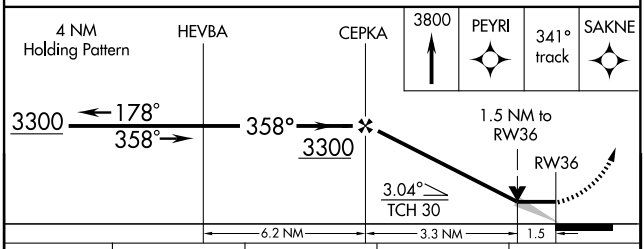
MISSED APPROACH: Climb to 3800 direct PEYRI and via 341° track to SAKNE and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
118.375	132.05 317.4	121.725	122.8 (CTAF) L



Procedure NA for arrivals at SECTO via V148 southwest bound and arrivals at OTG VOR/DME via V250 northeast bound.





CATEGORY	A	B	C	D
LNAV MDA	2240-1	506 (600-1)	2240-1½ 506 (600-1½)	NA
CIRCLING	2240-1	504 (600-1)	2280-1½ 544 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4001
286°	TDZE	1276
	Apt Elev	1276

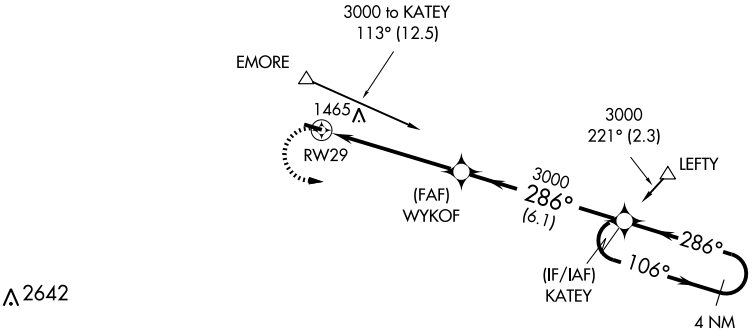
RNAV (GPS) RWY 29

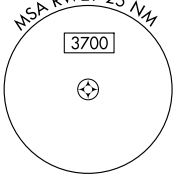
PRESTON/ FILLMORE COUNTY (FKA)

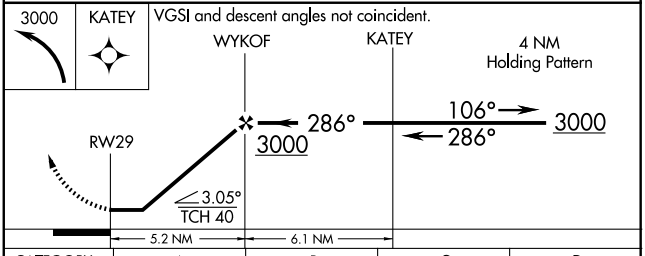
When VGSI inoperative, procedure NA at night.
DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Rochester Intl altimeter setting and increase all MDAs 60 feet and LNAV and Circling Cat. C visibilities ¼ mile.

MISSED APPROACH: Climbing left turn to 3000 direct KATEY and hold

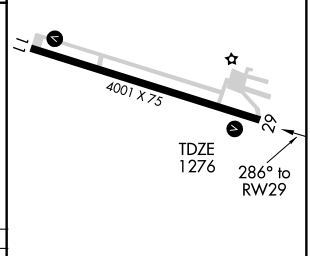
AWOS-3	ROCHESTER APP CON ★	CTAF
118.550	119.8 251.125	122.9 L







CATEGORY	A	B	C	D
LNAV MDA	1760-1 484 (500-1)		1760-1¼ 484 (500-1¼)	NA
CIRCLING	1760-1 484 (500-1)	1820-1 544 (600-1)	1820-1½ 544 (600-1½)	NA



MIRL Rwy 11-29 L

NC-1, 03 JUN 2010 to 01 JUL 2010

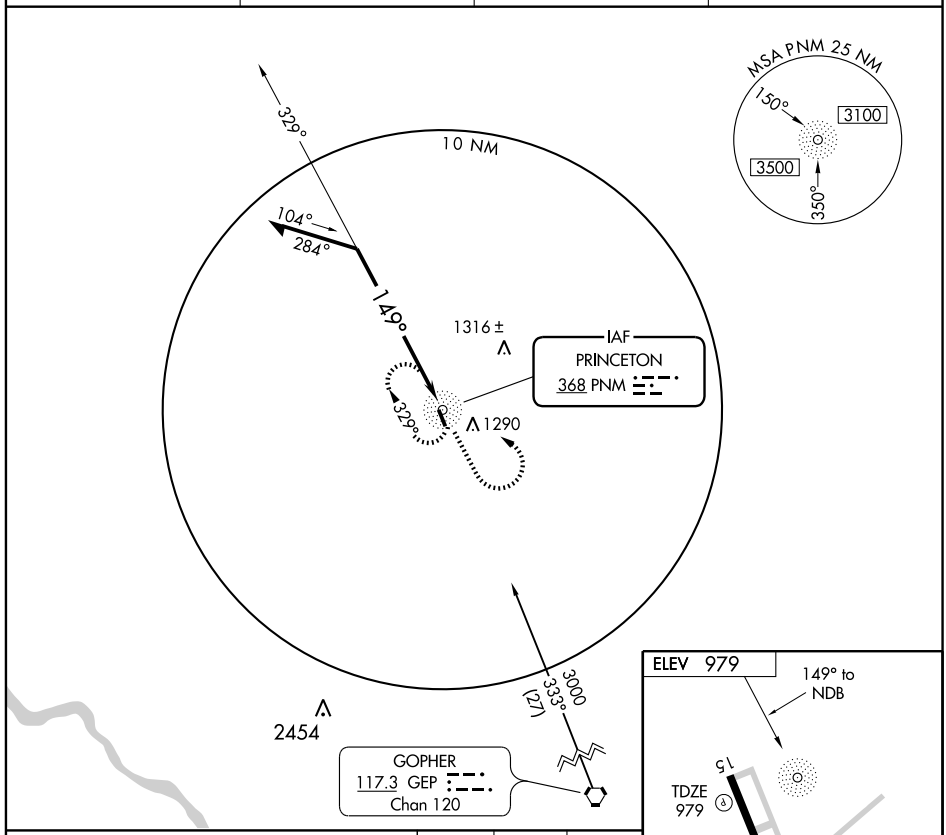
NDB PNM 368	APP CRS 149°	Rwy Idg 3900 TDZE 979 Apt Elev 979

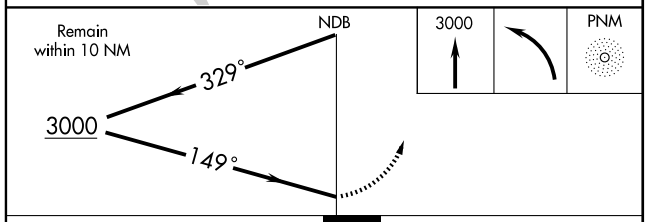
NDB RWY 15

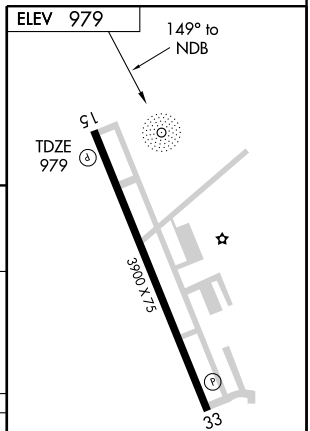
PRINCETON MUNI (PNM)

MISSED APPROACH: Climb to 3000 then left turn direct PNM NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	PRINCETON RADIO	UNICOM
119.025	121.05 397.9	122.2	123.0 (CTAF) L







CATEGORY	A	B	C	D
S-15	1560-1	581 (600-1)	1560-1½ 581 (600-1½)	NA
CIRCLING	1640-1	661 (700-1)	1640-1¾ 661 (700-1¾)	NA

REIL Rwys 15 and 33
MIRL Rwy 15-33 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3900
159°	TDZE	979
	Apt Elev	979

RNAV (GPS) RWY 15

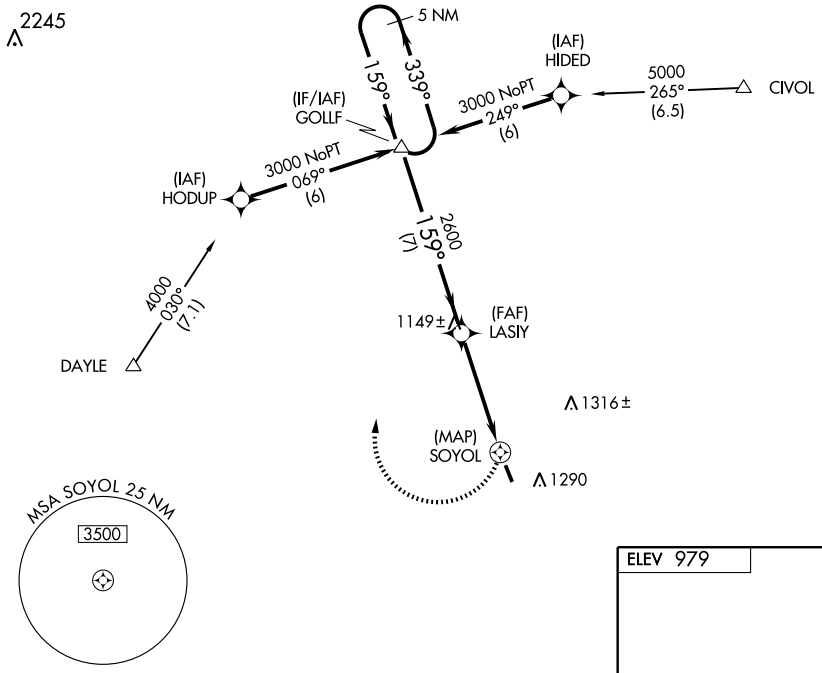
PRINCETON MUNI (PNM)

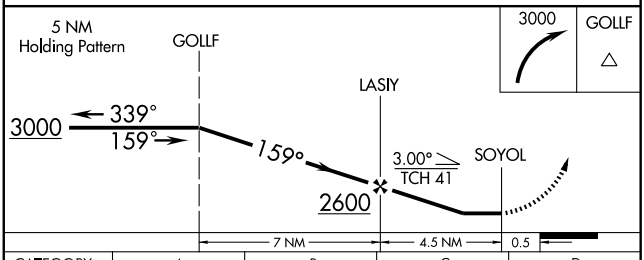
When VGSI inoperative, procedure NA at night.
DME/DME RNP-0.3 NA.
Circling Rwy 33 NA at night.

MISSED APPROACH: Climbing right turn to 3000 direct GOLLF and hold.

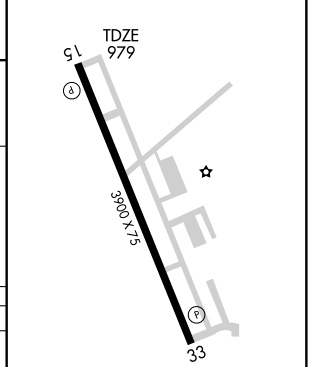
AWOS-3	MINNEAPOLIS CENTER	PRINCETON RADIO	UNICOM
119.025	121.05 397.9	122.2	123.0 (CTAF) L

Procedure NA for arrivals on V413 southbound.





CATEGORY	A	B	C	D
LNAV MDA	1380-1	401 (500-1)	1380-1¼ 401 (500-1¼)	NA
CIRCLING	1640-1	661 (700-1)	1640-1¾ 661 (700-1¾)	NA



REIL Rwys 15 and 33
MIRL Rwy 15-33 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS		
335°	Rwy Idg	3900
	TDZE	979
	Apt Elev	979

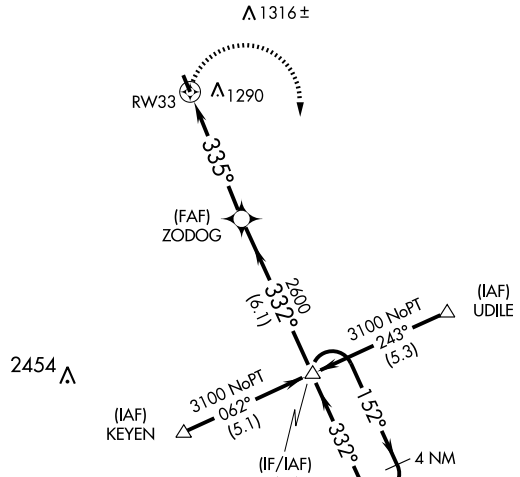
RNAV (GPS) RWY 33

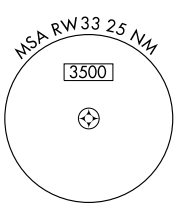
PRINCETON MUNI (PNM)

Procedure NA at night.
DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climbing right turn to 3100 direct ZAPIN and hold.

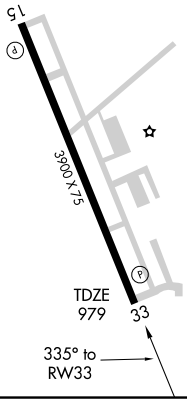
AWOS-3	MINNEAPOLIS CENTER	PRINCETON RADIO	UNICOM
119.025	121.05 397.9	122.2	123.0 (CTAF) L

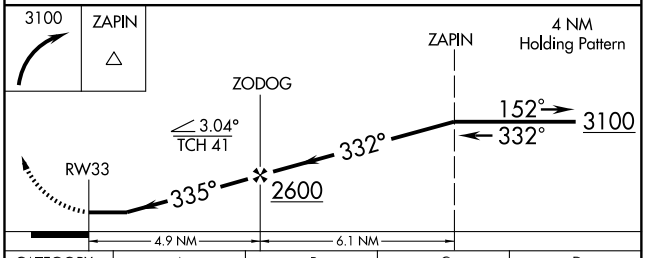




ELEV 979

REIL Rwys 15 and 33
MIRL Rwy 15-33 L



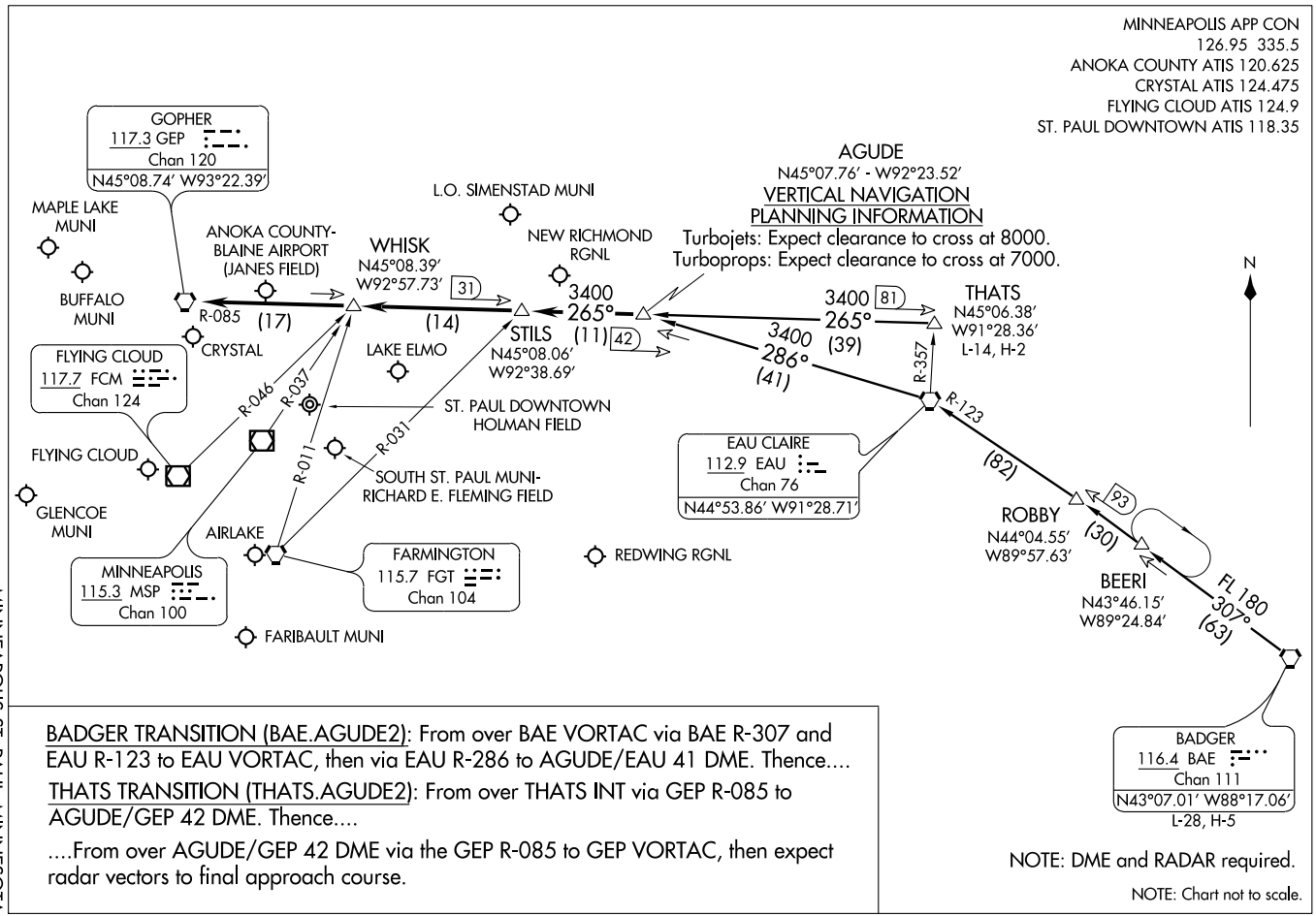


CATEGORY	A	B	C	D
LNAV MDA	1500-1	521 (600-1)	1500-1½ 521 (600-1½)	NA
CIRCLING	1640-1	661 (700-1)	1640-1¾ 661 (700-1¾)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

RED WING, MINNESOTA

AL-6662 (FAA)

LOC I-RGK	APP CRS	Rwy Idg	5010
110.1	091°	TDZE	778
		Apt Elev	780

ILS RWY 9

RED WING RGNL (RGK)

NA

MALSR

MISSED APPROACH: Climb to 3000 then right turn direct REGUE LOM and hold.

AWOS-3	MINNEAPOLIS APP CON	UNICOM
119.25	121.2 357.4	123.05 (CTAF) L

ADF REQUIRED

GOPHER
117.3 GEP
Chan 120

3400
130°
145.2]

1555

10 NM

1352

1288

LOCALIZER 110.1
I-RGK

3000
089°
(23)

271°

091°
1 min
271°

091°

949

1177±

1415

1470

FARMINGTON
115.7 FGT
Chan 104

LOM/IAF
REGUE
274 RG

1397

1490

1460

1455

1328±

MSA RG 25 NM
2800

One Minute
Holding Pattern

LOM

2964

3000

271°

091°

3000

GS 3.00°
TCH 50

6.6 NM

3000		RG
		274

ELEV 780

TDZE
778

5010 X 100

091° 6.6 NM
from FAF

REIL Rwy 27 L
HIRL Rwy 9-27 L

CATEGORY	A	B	C	D
S-ILS 9	978-½ 200 (200-½)			
S-LOC 9	1380-½ 602 (600-½)		1380-1¼ 602 (600-1¼)	1380-1½ 602 (600-1½)
CIRCLING	1480-1 700 (700-1)	1520-1 740 (800-1)	1540-2¼ 760 (800-2¼)	1540-2½ 760 (800-2½)

FAF to MAP 6.6 NM

Knots	60	90	120	150	180
Min:Sec	6:36	4:24	3:18	2:38	2:12

NC-1. 03 JUN 2010 to 01 JUL 2010

RED WING, MINNESOTA

AL-6662 (FAA)

RNAV (GPS) RWY 9

RED WING RGNL (RGK)

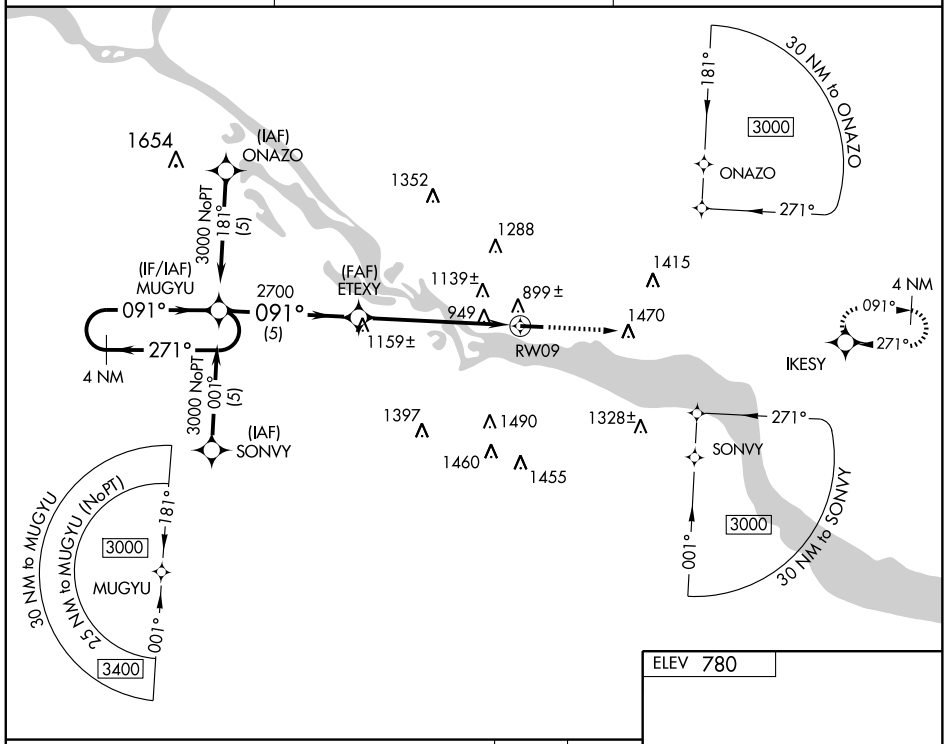
APP CRS	Rwy Idg	5010
091°	TDZE	778
	Apt Elev	780

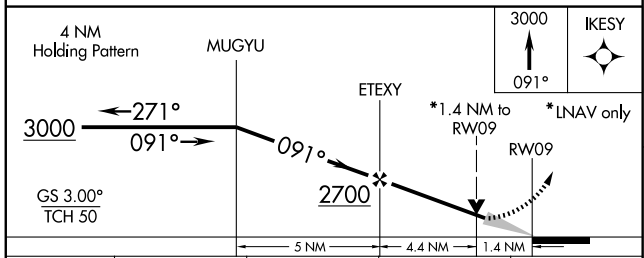
Baro VNAV NA below -16°C (4°F).
NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

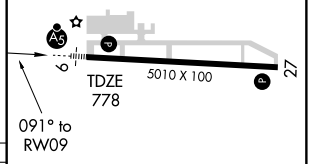
MALSR

MISSED APPROACH: Climb to 3000 via course 091° to IKESY WP and hold.

AWOS-3	MINNEAPOLIS APP CON	UNICOM
119.25	121.2 357.4	123.05 (CTAF) L







CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	1160-¾ 382 (400-¾)			NA
LNAV MDA	1260-½ 482 (500-½)		1260-¾ 482 (500-¾)	NA
CIRCLING	1480-1¼ 700 (700-1¼)	1520-1¼ 740 (800-1¼)	1540-2¼ 760 (800-2¼)	NA

REIL Rwy 27 L
HIRL Rwy 9-27 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 42618 W27A	APP CRS 271°	Rwy Idg 5010 / TDZE 777 / Apt Elev 778

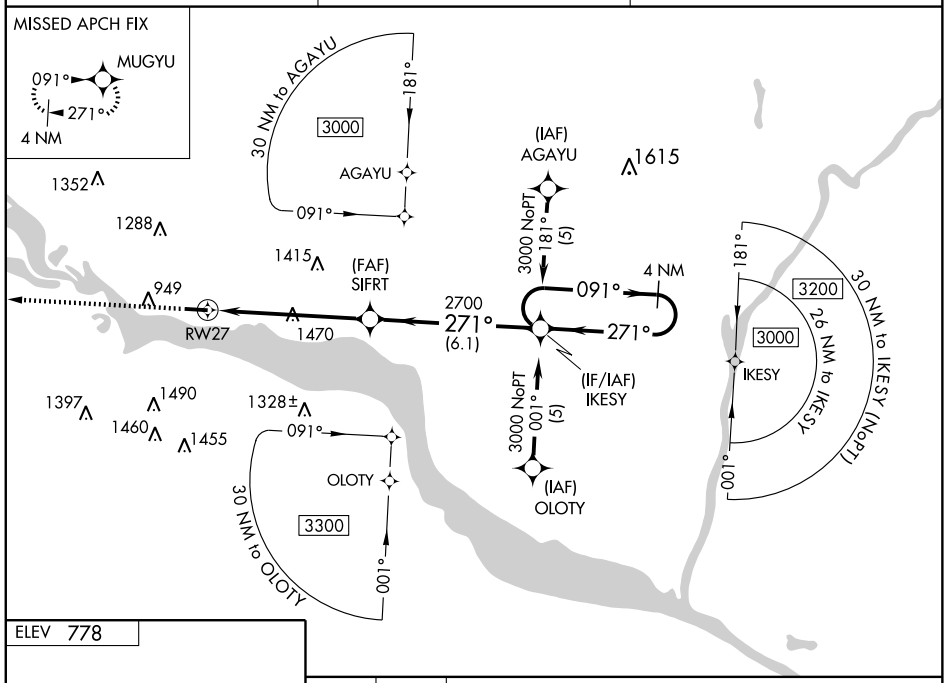
RNAV (GPS) RWY 27

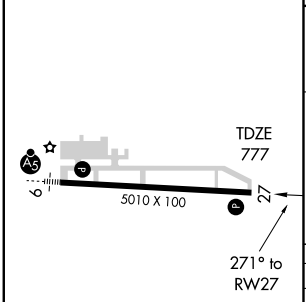
RED WING RGNL (RGK)

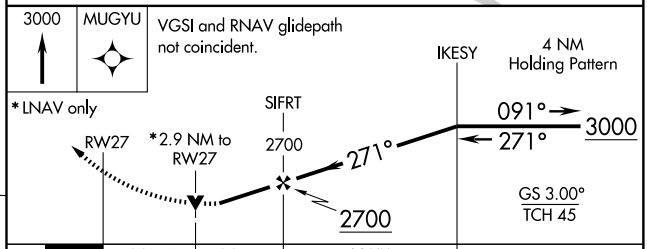
Baro-VNAV NA when using South St. Paul altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -16°C (4°F) or above 54°C (130°F). DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use South St. Paul altimeter setting and increase all DA 72 feet and all MDA 80 feet, and increase LNAV/VNAV Cats A, B, C visibility 1 mile. VDP NA when using South St. Paul altimeter setting.

MISSED APPROACH: Climb to 3000 direct MUGYU and hold.

AWOS-3	MINNEAPOLIS APP CON	UNICOM
119.25	121.2 357.4	123.05 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	2039-5 1262 (1300-5)			NA
LNAV/VNAV DA	2157-5 1380 (1400-5)			NA
LNAV MDA	1780-1¼ 1003 (1100-1¼)	1780-1½ 1003 (1100-1½)	1780-3 1003 (1100-3)	NA
CIRCLING	1780-1¼ 1002 (1100-1¼)	1780-1½ 1002 (1100-1½)	1780-3 1002 (1100-3)	NA

REIL Rwy 27 L
HIRL Rwy 9-27 L

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	4001
CH 86610	304°	TDZE	1024
W30A		Apt Elev	1024

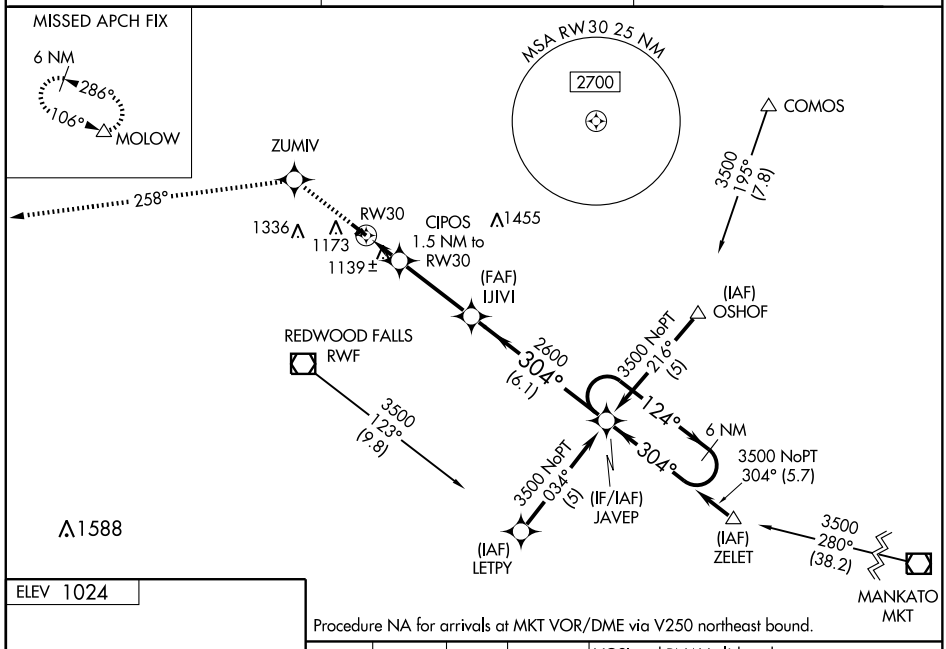
RNAV (GPS) RWY 30

REDWOOD FALLS MUNI (RWF)

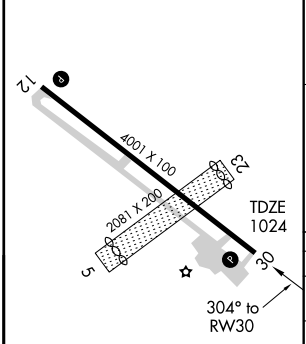
DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). Baro-VNAV NA when using Olivia Rgnl altimeter setting. When local altimeter setting not received, use Olivia Rgnl altimeter setting and increase all DA/MDA 40 feet and LNAV Cat C visibility ¼ mile.

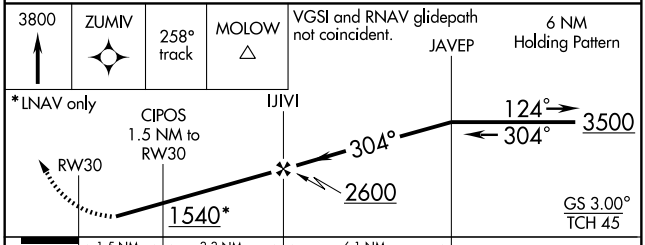
MISSED APPROACH: Climb to 3800 direct ZUMIV and via 258° track to MOLOW and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
126.575	127.1 290.2	123.0 (CTAF) L



Procedure NA for arrivals at MKT VOR/DME via V250 northeast bound.





CATEGORY	A	B	C	D
LPV DA	1304-1 280 (300-1)			
LNAV/VNAV DA	1440-1½ 416 (500-1½)			
LNAV MDA	1400-1 376 (400-1)			1400-1¼ 376 (400-1¼)
CIRCLING	1480-1 456 (500-1)	1580-1 556 (600-1)	1580-1½ 556 (600-1½)	1700-2¼ 676 (700-2¼)

REIL Rwys 12 and 30 L
MIRL Rwy 12-30 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME RWF	APP CRS	Rwy Idg	N/A
113.3	016°	TDZE	N/A
Chan 80		Apt Elev	1024

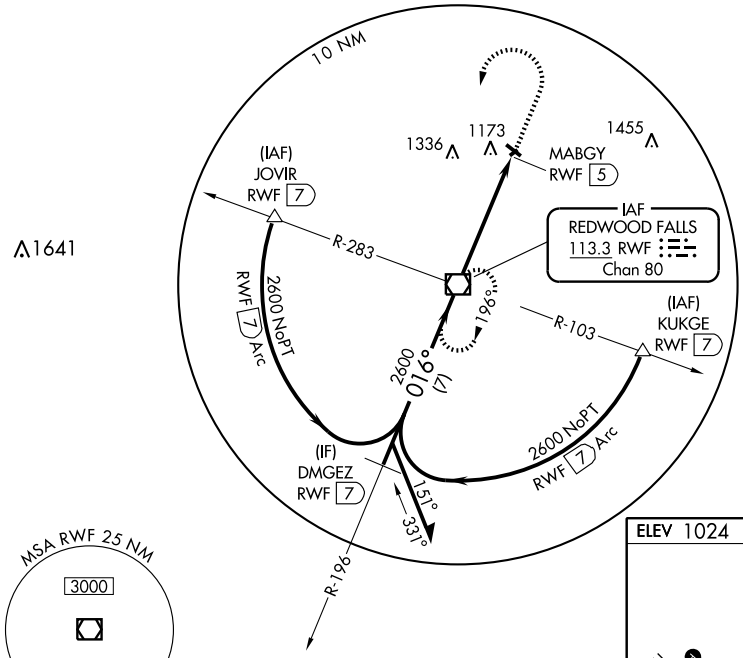
VOR-A

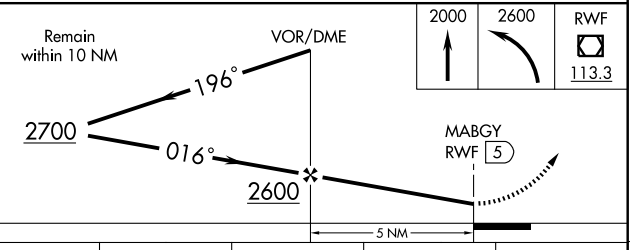
REDWOOD FALLS MUNI (RWF)

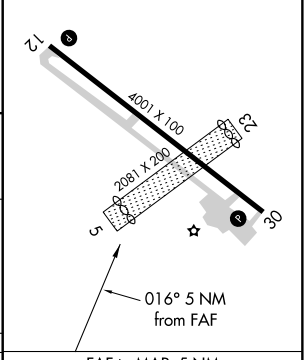
When local altimeter setting not received, use Olivia Rgnl altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climb to 2000 then climbing left turn to 2600 direct RWF VOR/DME and hold.

ASOS	MINNEAPOLIS CENTER	UNICOM
126.575	127.1 290.2	123.0 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	1540-1 516 (600-1)	1580-1 556 (600-1)	1580-1½ 556 (600-1½)	1700-2¼ 676 (700-2¼)

FAF to MAP 5 NM

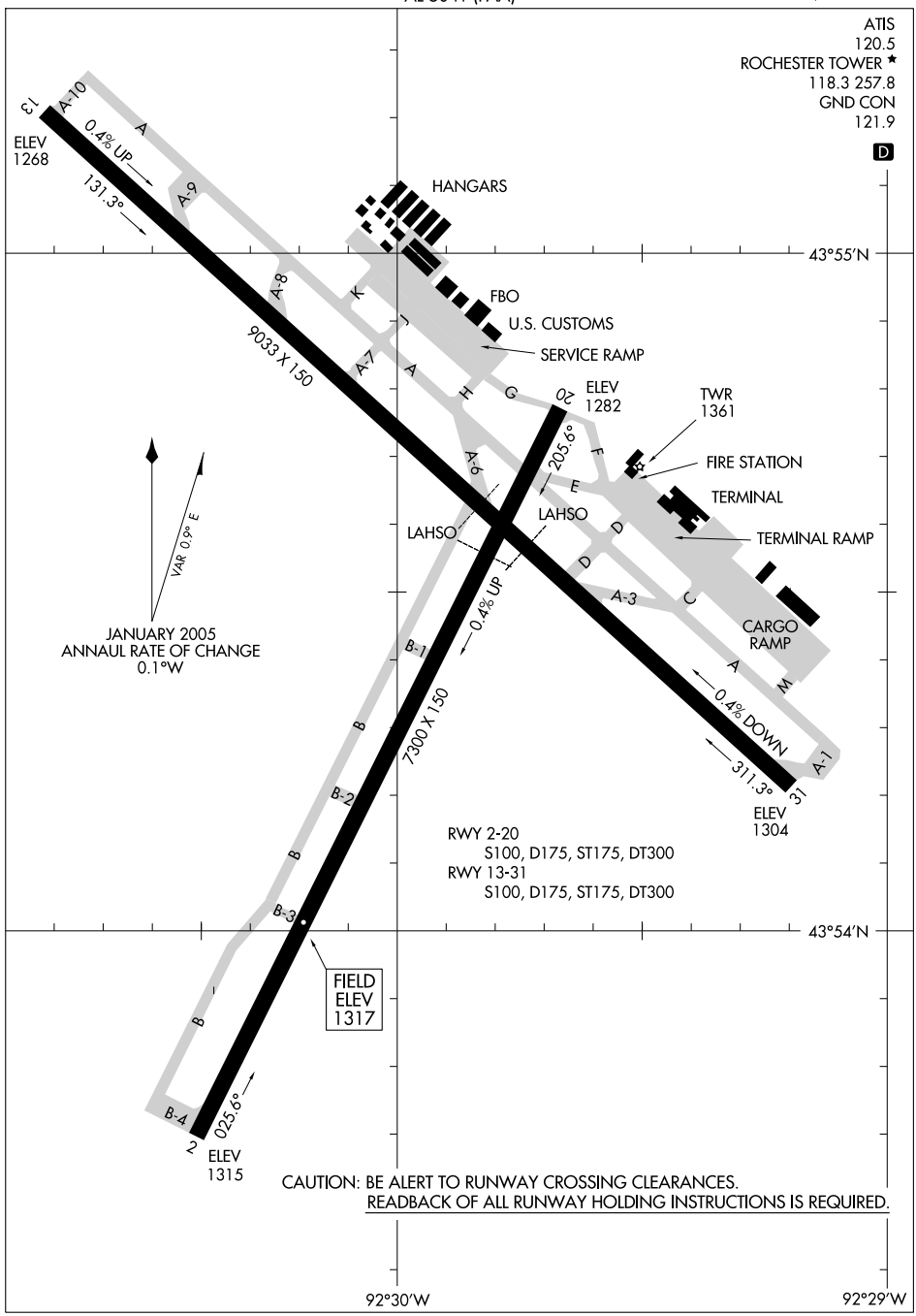
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

NC-1. 03 JUN 2010 to 01 JUL 2010

AIRPORT DIAGRAM

AL-5041 (FAA)

ROCHESTER INTL (RST)
ROCHESTER, MINNESOTA



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-RST	APP CRS	Rwy Idg	9033
108.5	311°	TDZE	1304
		Apt Elev	1317

COPTER ILS or LOC RWY 31

ROCHESTER INTL (RST)

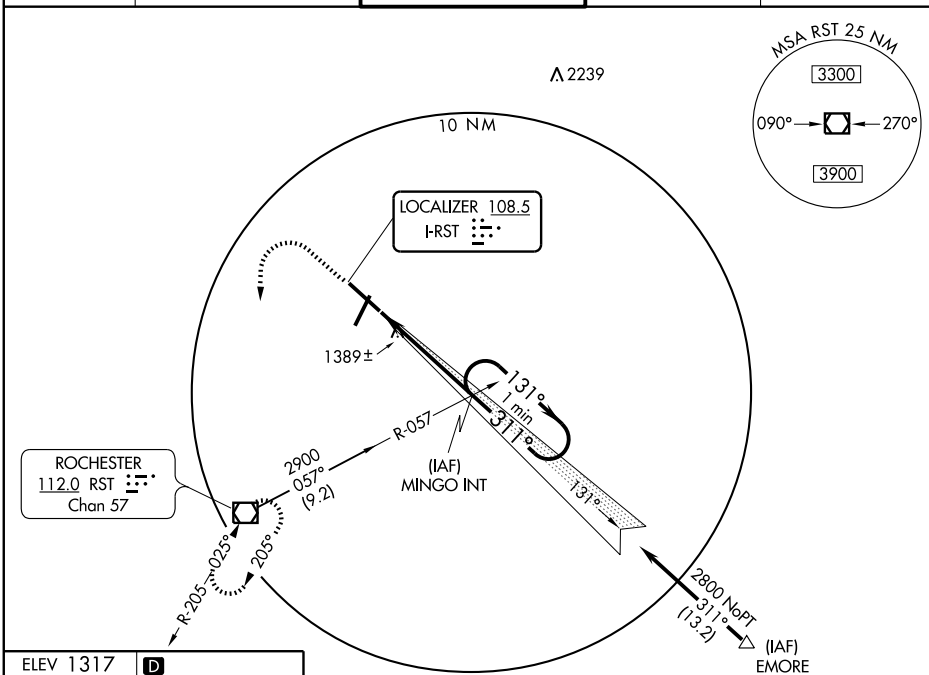
ASR

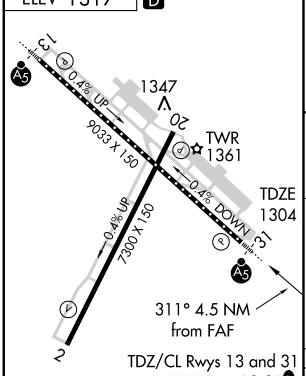
For inoperative MALSR, increase visibility to RVR 2400.

MALSR

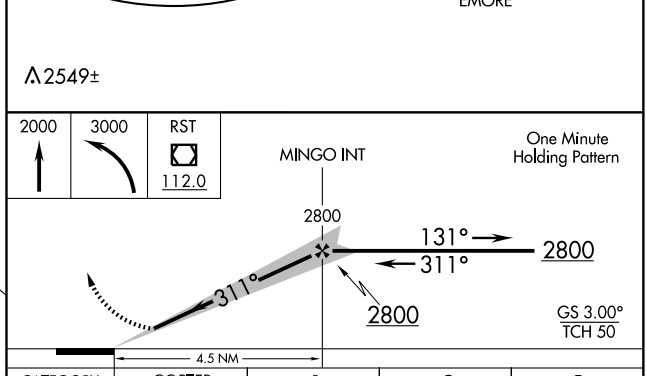
MISSED APPROACH: Climb to 2000 then climbing left turn to 3000 direct RST VOR/DME and hold.

ATIS	ROCHESTER APP CON★	ROCHESTER TOWER★	GND CON	UNICOM
120.5	119.8 251.125	118.3 (CTAF) L 257.8	121.9	122.95





FAF to MAP 4.5 NM					
Knots	45	60	75	90	105
Min:Sec	6:00	4:30	3:36	3:00	2:34



CATEGORY	COPTER	B	C	D
S-ILS 31	1504/16 200 (200-¼)	NA		
S-LOC 31	1660/16 356 (400-¼)	NA		
CIRCLING		NA		

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-MNK	APP CRS	Rwy Idg	9033
109.1	131°	TDZE	1280
		Apt Elev	1317

ILS or LOC RWY 13

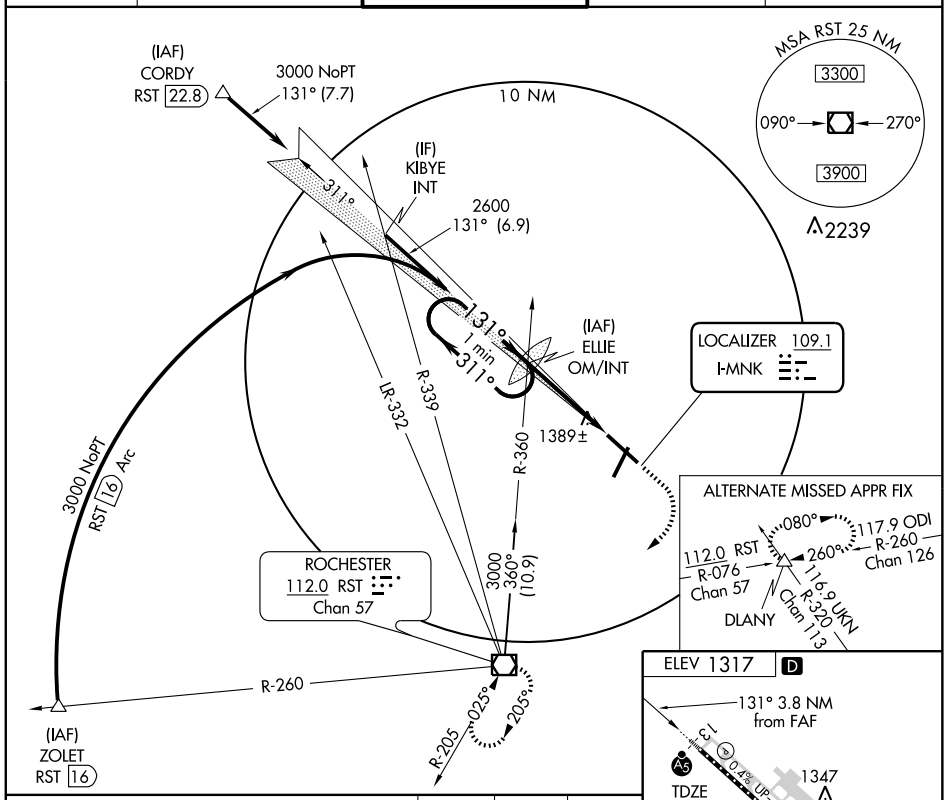
ROCHESTER INTL (RST)

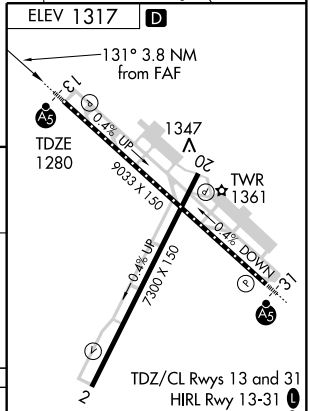
ASR

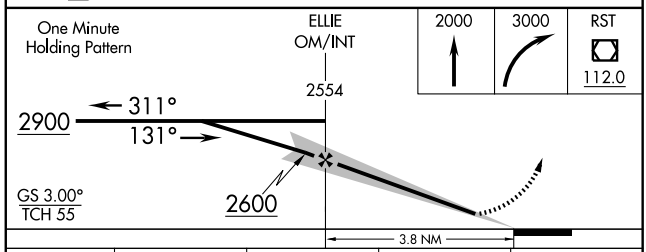
MALSR

MISSED APPROACH: Climb to 2000 then climbing right turn to 3000 direct RST VOR/DME and hold.

ATIS	ROCHESTER APP CON★	ROCHESTER TOWER★	GND CON	UNICOM
120.5	119.8 251.125	118.3 (CTAF) L 257.8	121.9	122.95







CATEGORY	A	B	C	D
S-ILS 13	1480/18 200 (200-½)			
S-LOC 13	1640/24 360 (400-½)			1640/40 360 (400-¾)
CIRCLING	1720-1 403 (500-1)	1780-1 463 (500-1)	1780-1½ 463 (500-1½)	1880-2 563 (600-2)

FAF to MAP 3.8 NM

Knots	60	90	120	150	180
Min:Sec	3:48	2:32	1:54	1:31	1:16

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-RST	APP CRS	Rwy Idg	9033
108.5	311°	TDZE	1304
		Apt Elev	1317

ILS or LOC RWY 31
ROCHESTER INTL (RST)

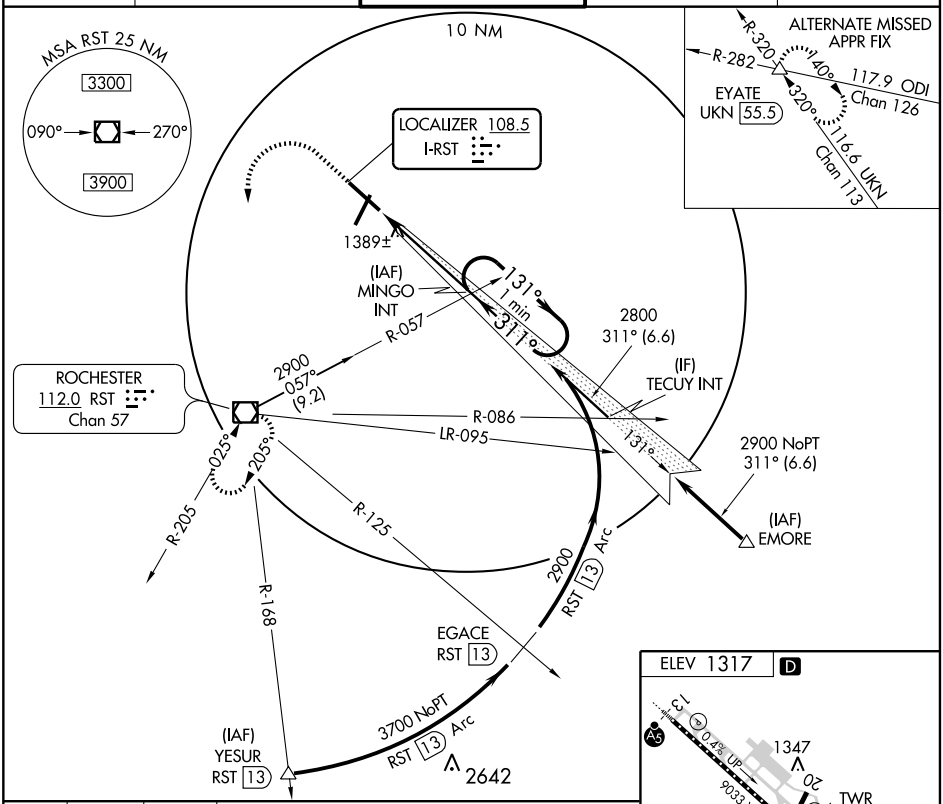
ASR

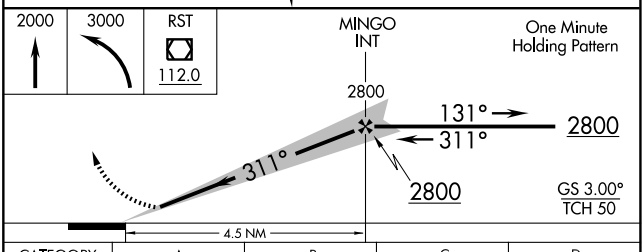
Autopilot coupled approach not authorized below 1542 MSL.

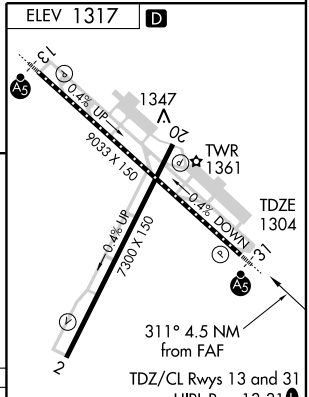
MALSR

MISSED APPROACH: Climb to 2000 then climbing left turn to 3000 direct RST VOR/DME and hold.

ATIS	ROCHESTER APP CON ★	ROCHESTER TOWER ★	GND CON	UNICOM
120.5	119.8 251.125	118.3 (CTAF) L 257.8	121.9	122.95







CATEGORY	A	B	C	D
S-ILS 31	1504/18 200 (200-½)			
S-LOC 31	1660/24 356 (400-½)			1660/40 356 (400-¾)
CIRCLING	1720-1 403 (500-1)	1780-1 463 (500-1)	1780-1½ 463 (500-1½)	1880-2 563 (600-2)

FAF to MAP 4.5 NM

Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

NC-1. 03 JUN 2010 to 01 JUL 2010

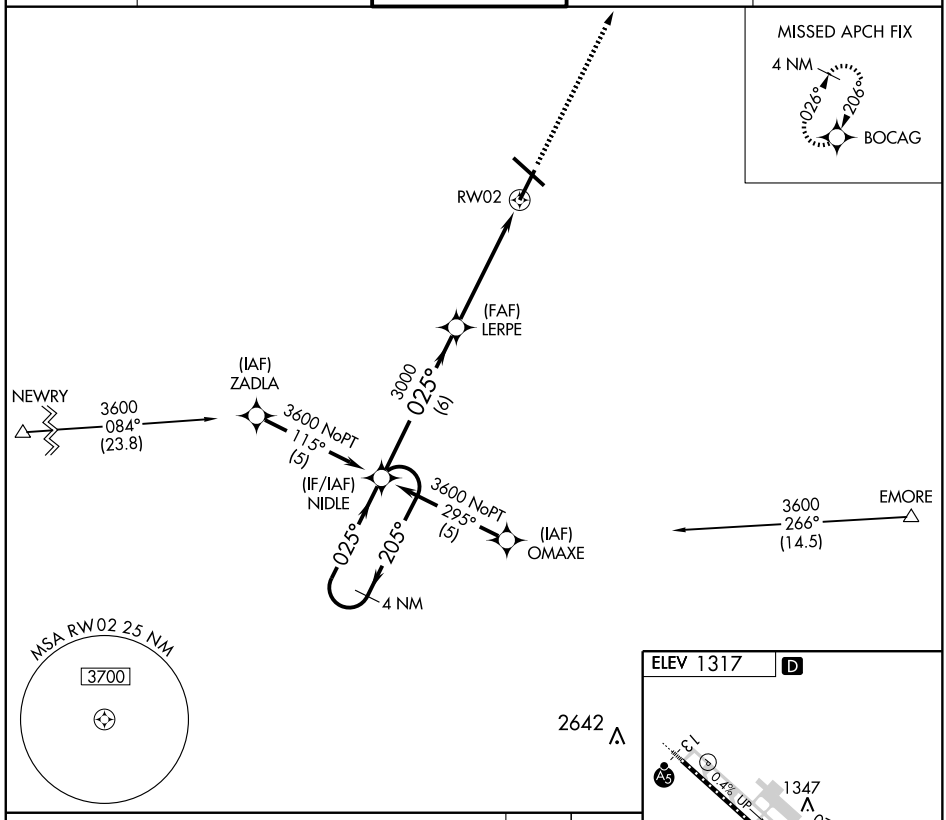
APP CRS	Rwy Idg	7300
025°	TDZE	1317
	Apt Elev	1317

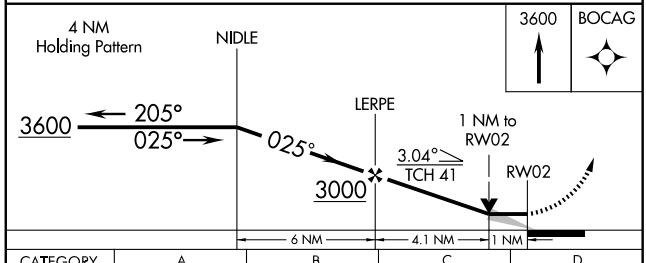
RNAV (GPS) RWY 2
ROCHESTER INTL (RST)

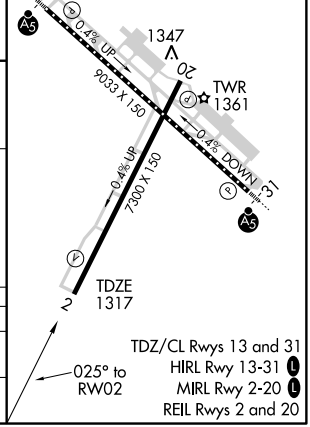
NA GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3600 direct BOCAG WP and hold.

ATIS	ROCHESTER APP CON ★	ROCHESTER TOWER ★	GND CON	UNICOM
120.5	119.8 251.125	118.3 (CTAF) L 257.8	121.9	122.95







CATEGORY	A	B	C	D
LNAV MDA	1660-1 343 (400-1)			1660-1¼ 343 (400-1¼)
CIRCLING	1720-1 403 (500-1)	1780-1 463 (500-1)	1780-1½ 463 (500-1½)	1880-2 563 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	9033
CH 90202	131°	TDZE	1280
W13A		Apt Elev	1317

RNAV (GPS) RWY 13
ROCHESTER INTL (RST)

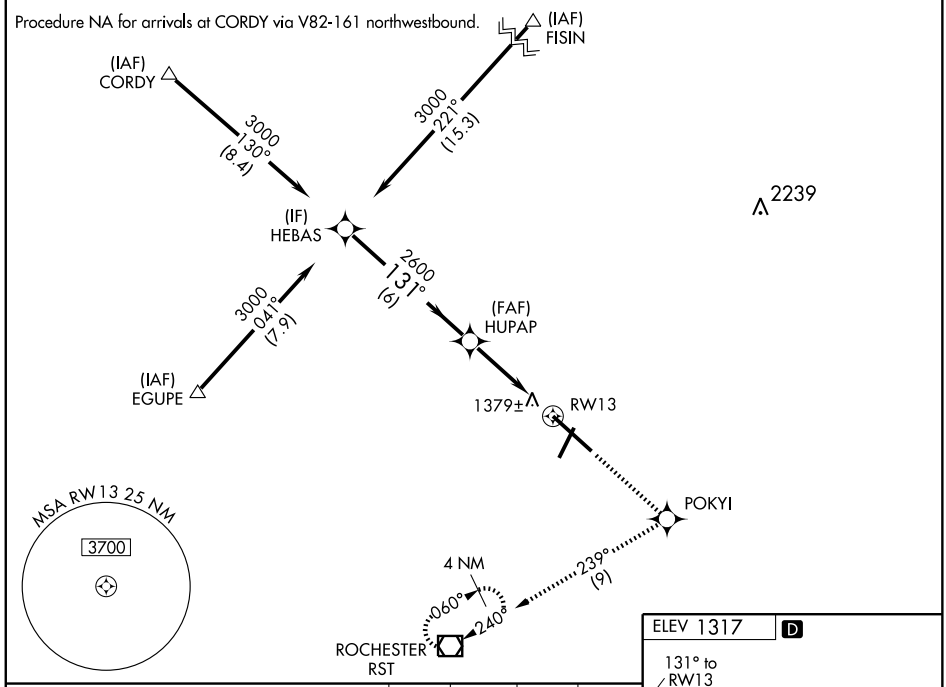
ASR — DME/DME RNP-0.3 NA.
For uncompensated Baro-VNAV system, LNAV/VNAV NA below -17°C (2°F) or above 45°C (114°F).
For inoperative MALSR increase LPV all Cats visibility to RVR 5000 and LNAV Cat D visibility to RVR 6000.

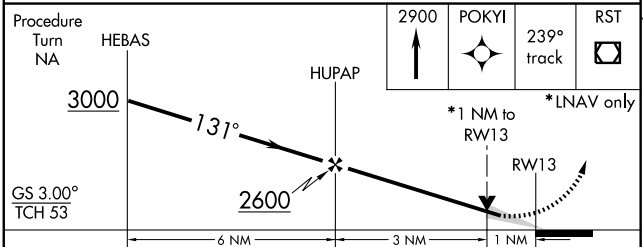
MALSR

MISSED APPROACH: Climb to 2900 direct POKYI and via 239° track to RST VOR/DME and hold.

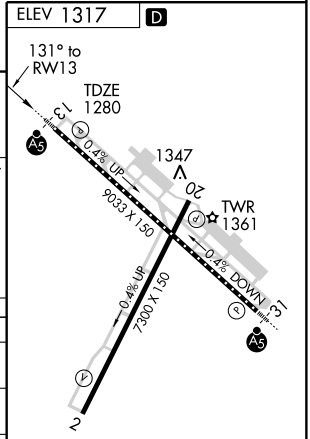
ATIS	ROCHESTER APP CON★	ROCHESTER TOWER★	GND CON	UNICOM
120.5	119.8 251.125	118.3 (CTAF) L 257.8	121.9	122.95

Procedure NA for arrivals at CORDY via V82-161 northwestbound.





CATEGORY	A	B	C	D
LPV DA	1530/24 250 (300-½)			
LNAV/VNAV DA	1679/50 399 (400-1)			
LNAV MDA	1640/24 360 (400-½)			1640/50 360 (400-1)
CIRCLING	1720-1½ 403 (500-1½)	1780-1½ 463 (500-1½)		1880-2 563 (600-2)



TDZ/CL Rwys 13 and 31
HIRL Rwy 13-31 L
MIRL Rwy 2-20 L
REIL Rwys 2 and 20

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	7300
206°	TDZE	1304
	Apt Elev	1317

RNAV (GPS) RWY 20
ROCHESTER INTL (RST)

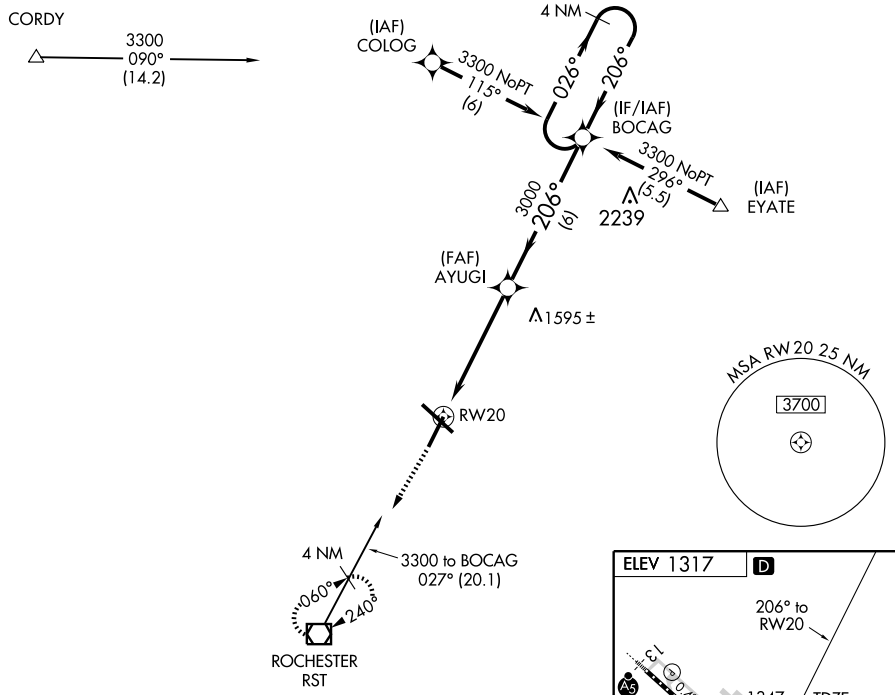
V NA ASR

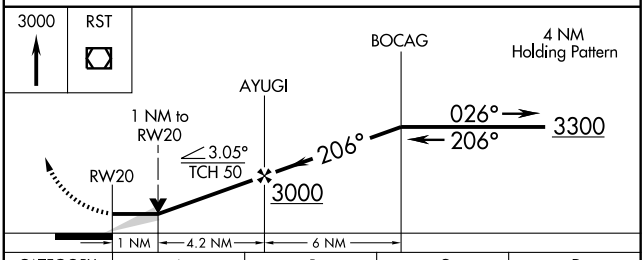
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3000 direct RST VOR/DME and hold.

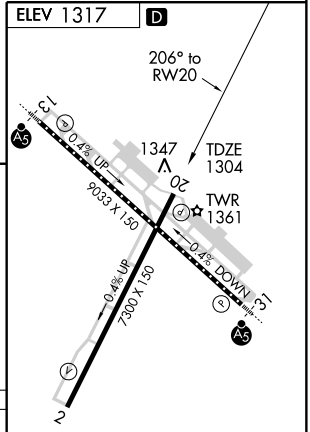
ATIS	ROCHESTER APP CON ★	ROCHESTER TOWER ★	GND CON	UNICOM
120.5	119.8 251.125	118.3 (CTAF) L 257.8	121.9	122.95

Procedure NA for arrivals at EYATE via V218 southeastbound.





CATEGORY	A	B	C	D
LNAV MDA	1660-1 356 (400-1)			1660-1¼ 356 (400-1¼)
CIRCLING	1720-1 403 (500-1)	1780-1 463 (500-1)	1780-1½ 463 (500-1½)	1880-2 563 (600-2)



TDZ/CL Rwys 13 and 31
HIRL Rwy 13-31 L
MIRL Rwy 2-20 L
REIL Rwys 2 and 20

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	9033
311°	TDZE	1304
	Apt Elev	1317

RNAV (GPS) RWY 31
ROCHESTER INTL (RST)

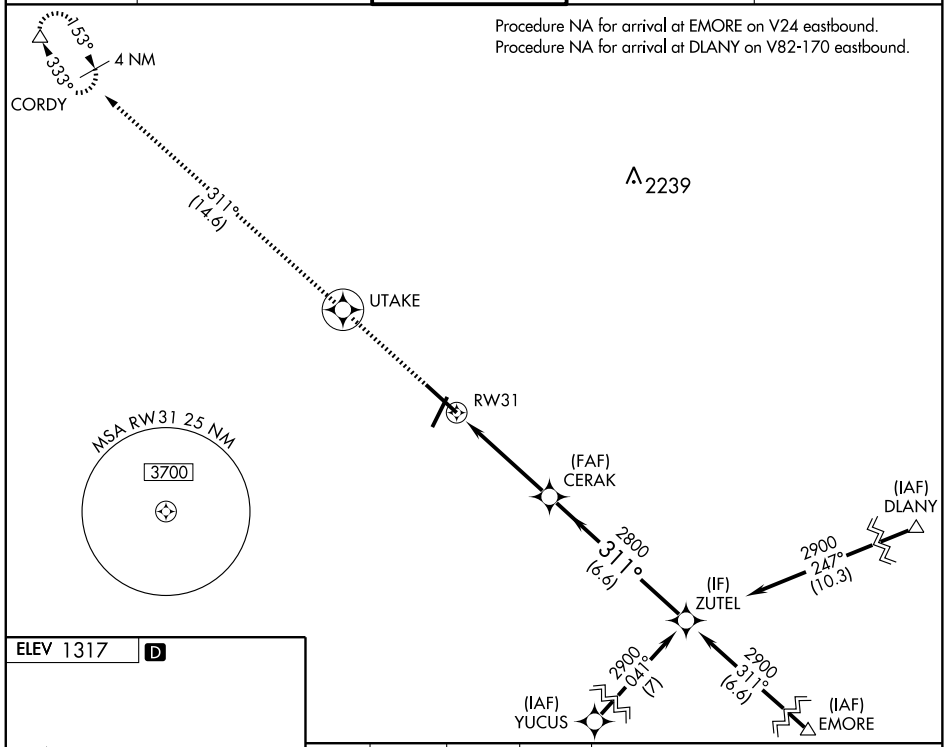
T NA ASR — Baro-VNAV NA below -17°C (2°F). GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. For inoperative MALSR increase LNAV/VNAV Cat. D visibility to RVR 5000 and increase LNAV Cat. D visibility to RVR 6000.

MALSR (A5)

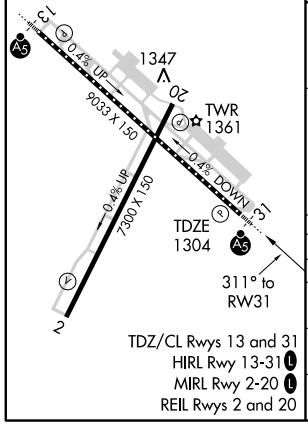
MISSED APPROACH: Climb to 3000 direct UTAKE WP and via 311° track to CORDY WP and hold.

ATIS	ROCHESTER APP CON★	ROCHESTER TOWER★	GND CON	UNICOM
120.5	119.8 251.125	118.3 (CTAF) L 257.8	121.9	122.95

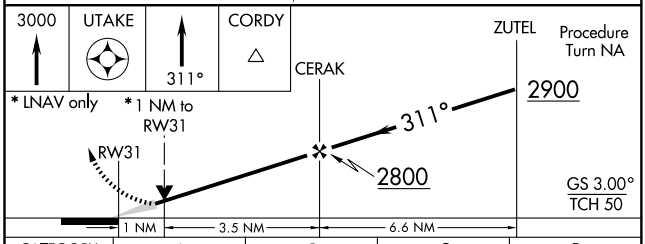
Procedure NA for arrival at EMORE on V24 eastbound.
Procedure NA for arrival at DLANY on V82-170 eastbound.



ELEV 1317 D



TDZ/CL Rwys 13 and 31
HIRL Rwy 13-31 L
MIRL Rwy 2-20 L
REIL Rwys 2 and 20



CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV MDA	1620/24 316 (400-½)			1620/40 316 (400-¾)
LNAV MDA	1680/24 376 (400-½)			1680/50 376 (400-1)
CIRCLING	1720-1 403 (500-1)	1780-1 463 (500-1)	1780-1½ 463 (500-1½)	1880-2 563 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME RST	APP CRS	Rwy Idg	7300
112.0	204°	TDZE	1304
Chan 57		Apt Elev	1317

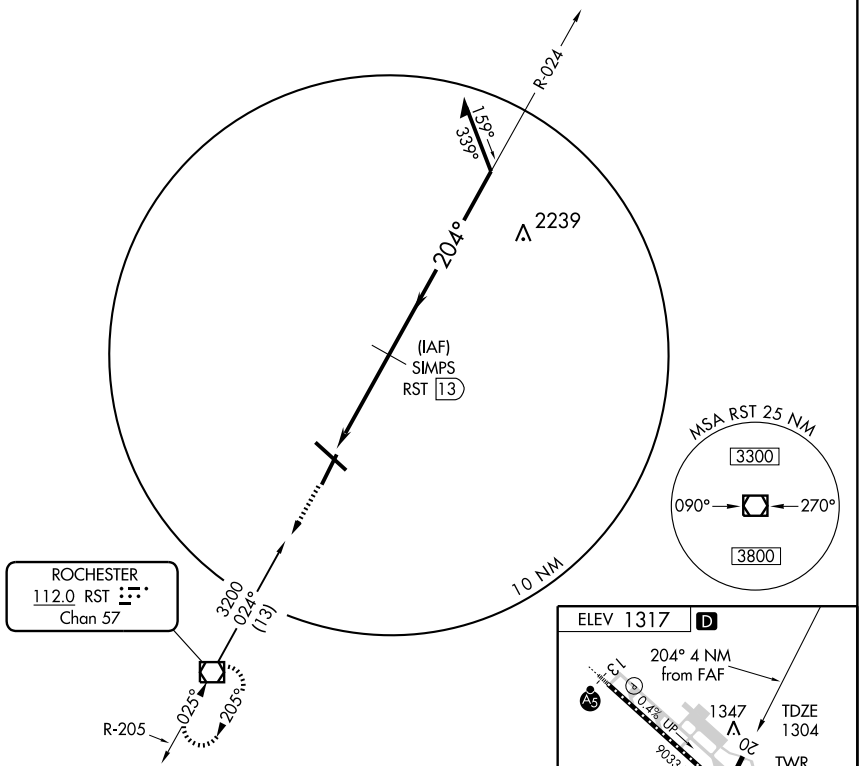
VOR/DME RWY 20

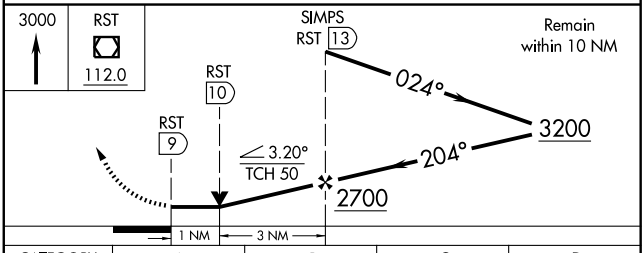
ROCHESTER INTL (RST)

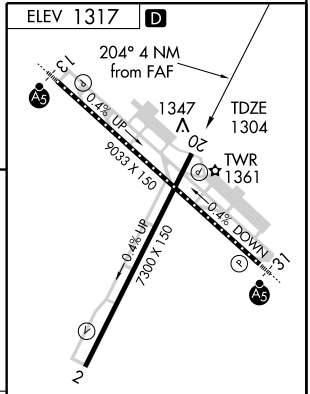
ASR

MISSED APPROACH: Climb to 3000 direct RST VOR/DME and hold.

ATIS	ROCHESTER APP CON★	ROCHESTER TOWER★	GND CON	UNICOM
120.5	119.8 251.125	118.3 (CTAF) L 257.8	121.9	122.95







CATEGORY	A	B	C	D
S-20	1660-1 356 (400-1)			1660-1¼ 356 (400-1¼)
CIRCLING	1720-1 403 (500-1)	1780-1 463 (500-1)	1780-1½ 463 (500-1½)	1880-2 563 (600-2)

TDZ/CL Rwys 13 and 31
HIRL Rwy 13-31 L
MIRL Rwy 2-20 L
REIL Rwys 2 and 20

NC-1. 03 JUN 2010 to 01 JUL 2010

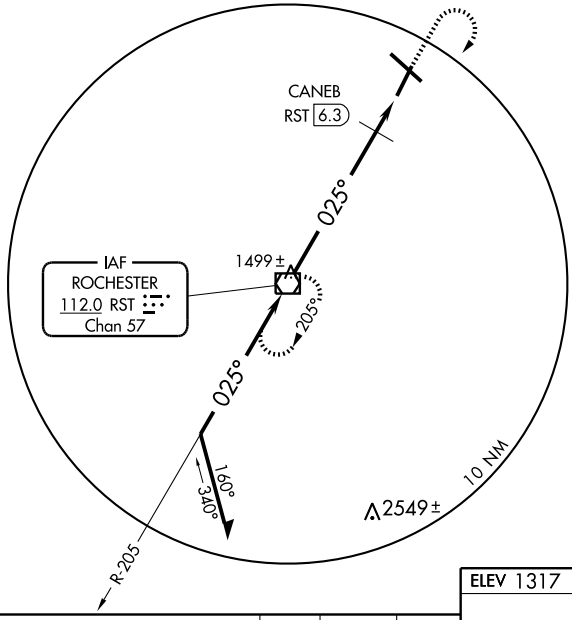
VOR/DME RST	APP CRS	Rwy Idg	7300
112.0	025°	TDZE	1317
Chan 57		Apt Elev	1317

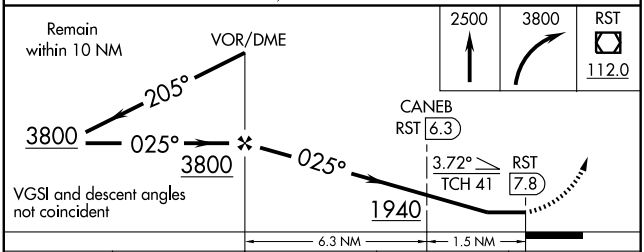
VOR RWY 2
ROCHESTER INTL (RST)

T ASR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3800 direct RST VOR/DME and hold.

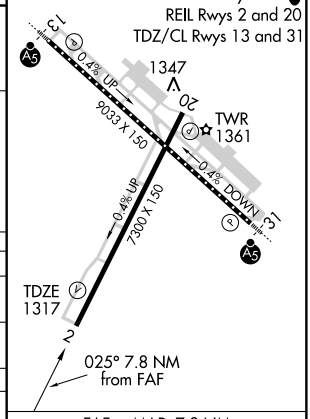
ATIS	ROCHESTER APP CON ★	ROCHESTER TOWER ★	GND CON	UNICOM
120.5	119.8 251.125	118.3 (CTAF) L 257.8	121.9	122.95





CATEGORY	A	B	C	D
S-2	1940-1 623 (700-1)		1940-1¾ 623 (700-1¾)	1940-2 623 (700-2)
CIRCLING	1940-1 623 (700-1)		1940-1¾ 623 (700-1¾)	1940-2 623 (700-2)
DME MINIMUMS				
S-2	1680-1 363 (400-1)			NA
CIRCLING	1720-1 403 (500-1)	1780-1 463 (500-1)	1780-1½ 463 (500-1½)	1880-2 563 (600-2)

ELEV 1317 D
HIRL Rwy 13-31 L
MIRL Rwy 2-20 L
REIL Rwys 2 and 20
TDZ/CL Rwys 13 and 31



FAF to MAP 7.8 NM					
Knots	60	90	120	150	180
Min:Sec	7:48	5:12	3:54	3:07	2:36

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 56304 W16A	APP CRS 162°	Rwy Idg 4401 TDZE 1055 Apt Elev 1060

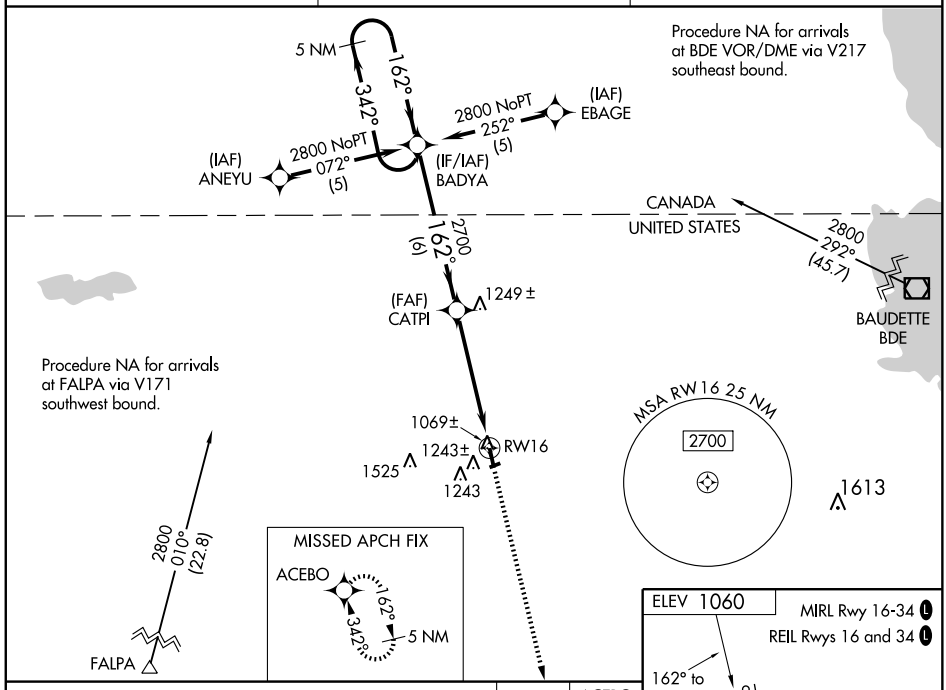
RNAV (GPS) RWY 16

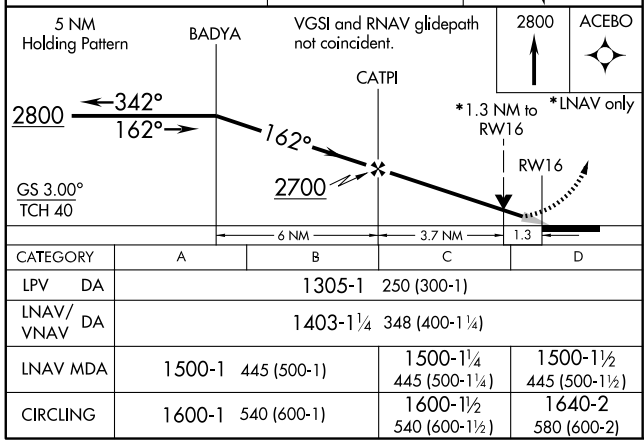
ROSEAU MUNI/RUDY BILLBERG FIELD (ROX)

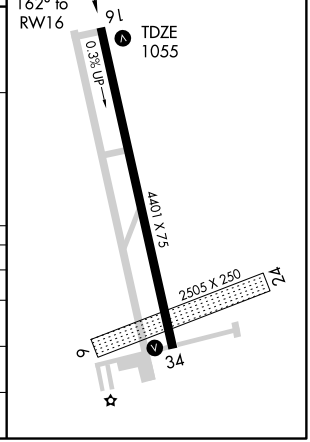
If local altimeter setting not received, use Warroad altimeter setting and increase all DAs 36 feet/MDAs 40 feet.
VDP NA when using Warroad altimeter setting.
Baro-VNAV NA when using Warroad altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 2800 direct ACEBO and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.8	134.75 251.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1305-1 250 (300-1)			
LNAV/VNAV DA	1403-1¼ 348 (400-1¼)			
LNAV MDA	1500-1 445 (500-1)		1500-1¼ 445 (500-1¼)	1500-1½ 445 (500-1½)
CIRCLING	1600-1 540 (600-1)		1600-1½ 540 (600-1½)	1640-2 580 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	4401
CH 99404	342°	TDZE	1060
W34A		Apt Elev	1060

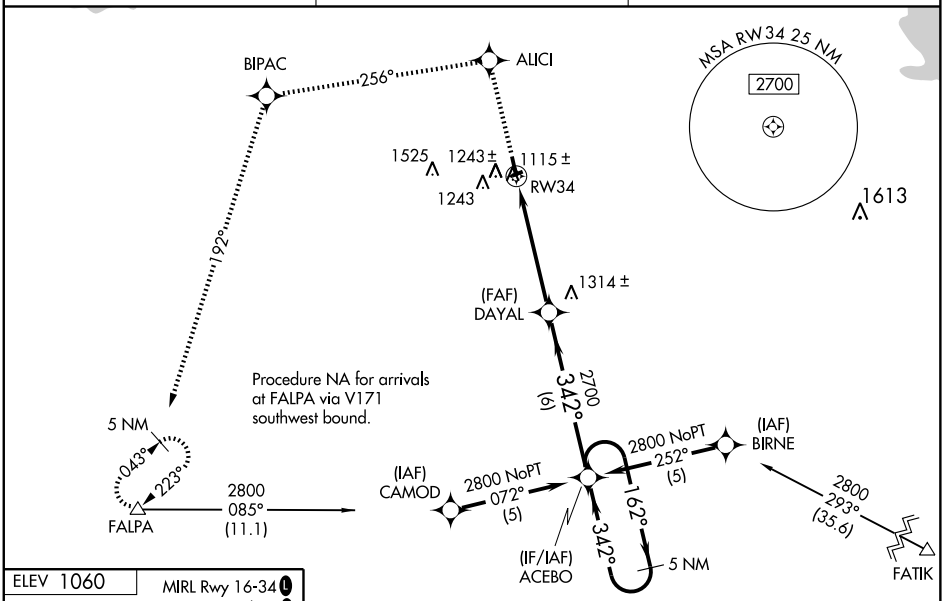
RNAV (GPS) RWY 34

ROSEAU MUNI/RUDY BILLBERG FIELD (ROX)

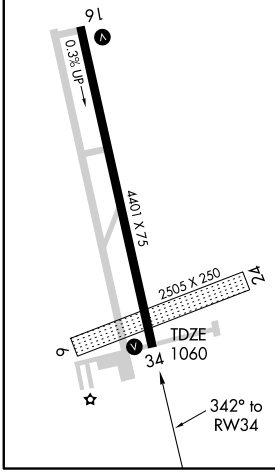
If local altimeter setting not received, use Warroad altimeter setting and increase all DAs 36 feet/MDAs 40 feet.
VDP NA when using Warroad altimeter setting.
Baro-VNAV NA when using Warroad altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F).
Visibility reduction by helicopters NA. DME/DME RNP- 0.3 NA.

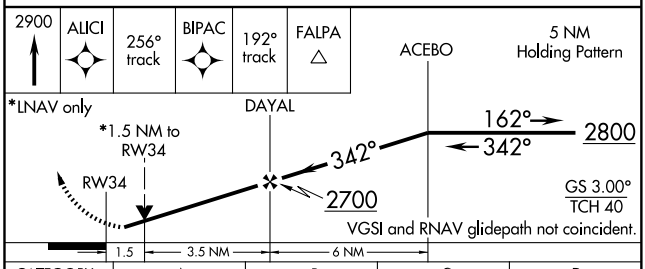
MISSED APPROACH: Climb to 2900 direct ALICI and via 256° track to BIPAC and 192° track to FALPA and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.8	134.75 251.1	122.8 (CTAF) L



ELEV 1060
MIRL Rwy 16-34 L
REIL Rwys 16 and 34 L





CATEGORY	A	B	C	D
LPV DA	1310-1 250 (300-1)			
LNAV/VNAV DA	1485-1½ 425 (500-1½)			
LNAV MDA	1560-1 500 (500-1)		1560-1¼ 500 (500-1¼)	1560-1½ 500 (500-1½)
CIRCLING	1600-1 540 (600-1)		1600-1½ 540 (600-1½)	1640-2 580 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME ROX	APP CRS	Rwy Idg	4401
108.8	156°	TDZE	1055
Chan 25		Apt Elev	1060

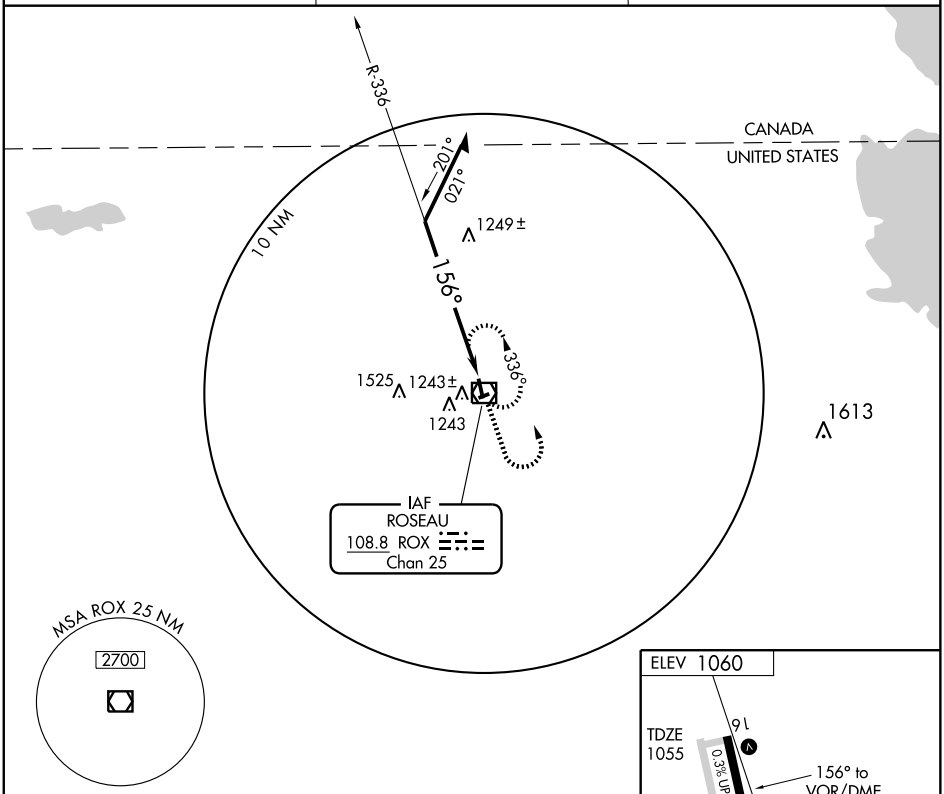
VOR RWY 16

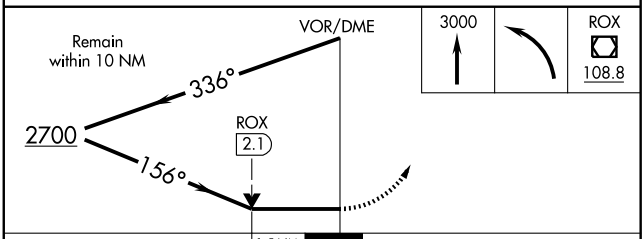
ROSEAU MUNI/RUDY BILLBERG FIELD (ROX)

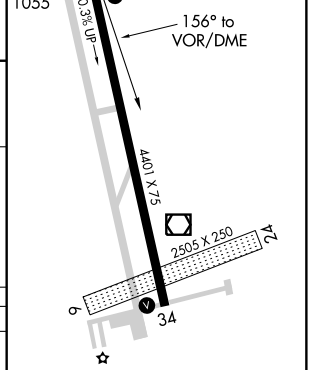
If local altimeter setting not received, use Warroad altimeter setting and increase all MDAs 40 feet. VDP NA when using Warroad altimeter setting.

MISSED APPROACH: Climb to 3000 then left turn direct ROX VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.8	134.75 251.1	122.8 (CTAF) L







MIRL Rwy 16-34 L
REIL Rwys 16 and 34 L

CATEGORY	A	B	C	D
S-16	1560-1 505 (500-1)		1560-1½ 505 (500-1½)	
CIRCLING	1600-1 540 (600-1)		1600-1½ 540 (600-1½)	1640-2 580 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME ROX	APP CRS	Rwy Idg	4401
108.8	349°	TDZE	1060
Chan 25		Apt Elev	1060

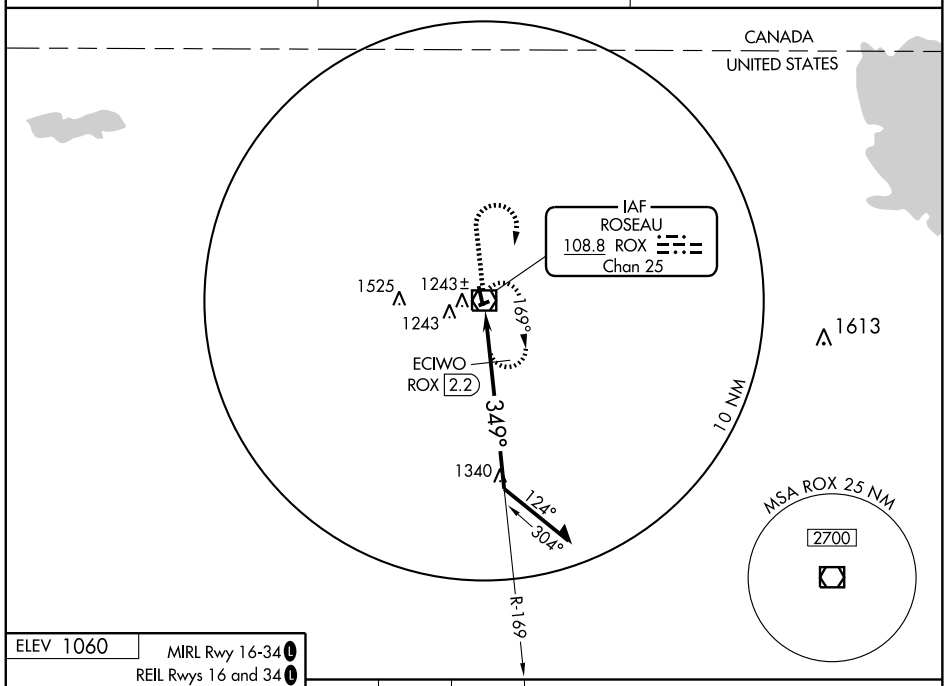
VOR RWY 34

ROSEAU MUNI/RUDY BILLBERG FIELD (ROX)

If local altimeter setting not received, use Warroad altimeter setting and increase all MDAs 40 feet. VDP NA when using Warroad altimeter setting. Visibility reduction by helicopters NA.

MISSED APPROACH: Climb to 3000 then right turn direct ROX VOR/DME and hold.

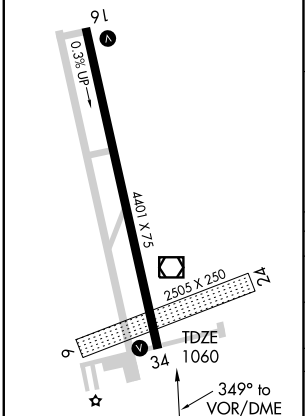
AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.8	134.75 251.1	122.8 (CTAF) L

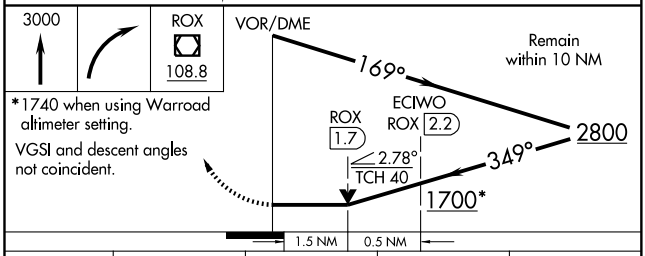


ELEV 1060

MIRL Rwy 16-34 L

REIL Rwys 16 and 34 L





*1740 when using Warroad altimeter setting.

VGSI and descent angles not coincident.

CATEGORY	A	B	C	D
S-34	1700-1 640 (700-1)		1700-1¾ 640 (700-1¾)	1700-2 640 (700-2)
CIRCLING	1700-1 640 (700-1)		1700-1¾ 640 (700-1¾)	1700-2 640 (700-2)
ECIWO FIX MINIMUMS				
S-34	1560-1 500 (500-1)		1560-1¼ 500 (500-1¼)	1560-1½ 500 (500-1½)
CIRCLING	1600-1 540 (600-1)		1600-1½ 540 (600-1½)	1640-2 580 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

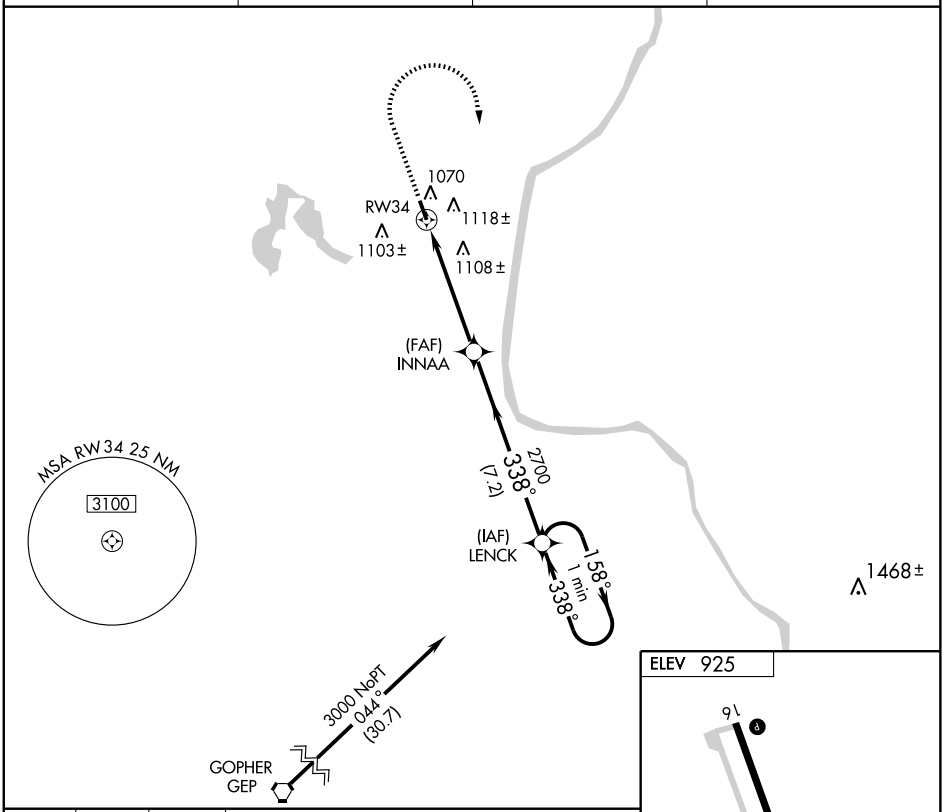
APP CRS	Rwy Idg	4400
338°	TDZE	920
	Apt Elev	925

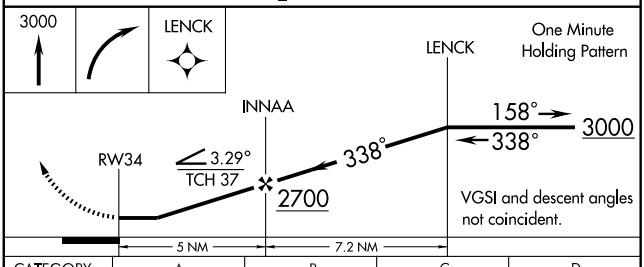
GPS RWY 34
RUSH CITY RGNL (ROS)

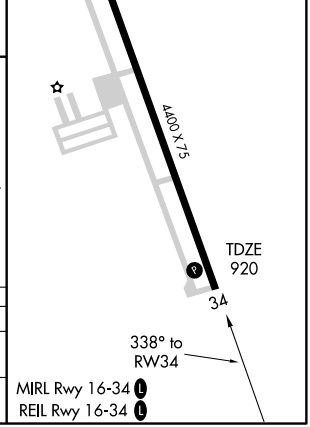
NA

MISSED APPROACH: Climb to 3000, then right turn direct LENCK WP and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
282	121.05 397.9	121.725	122.9 L







CATEGORY	A	B	C	D
S-34	1320-1 400 (400-1)			1320-1¼ 400 (400-1¼)
CIRCLING	1420-1 495 (500-1)		1420-1½ 495 (500-1½)	1480-2 555 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB ROS	APP CRS		
282	329°	Rwy Idg	4400
		TDZE	920
		Apt Elev	925

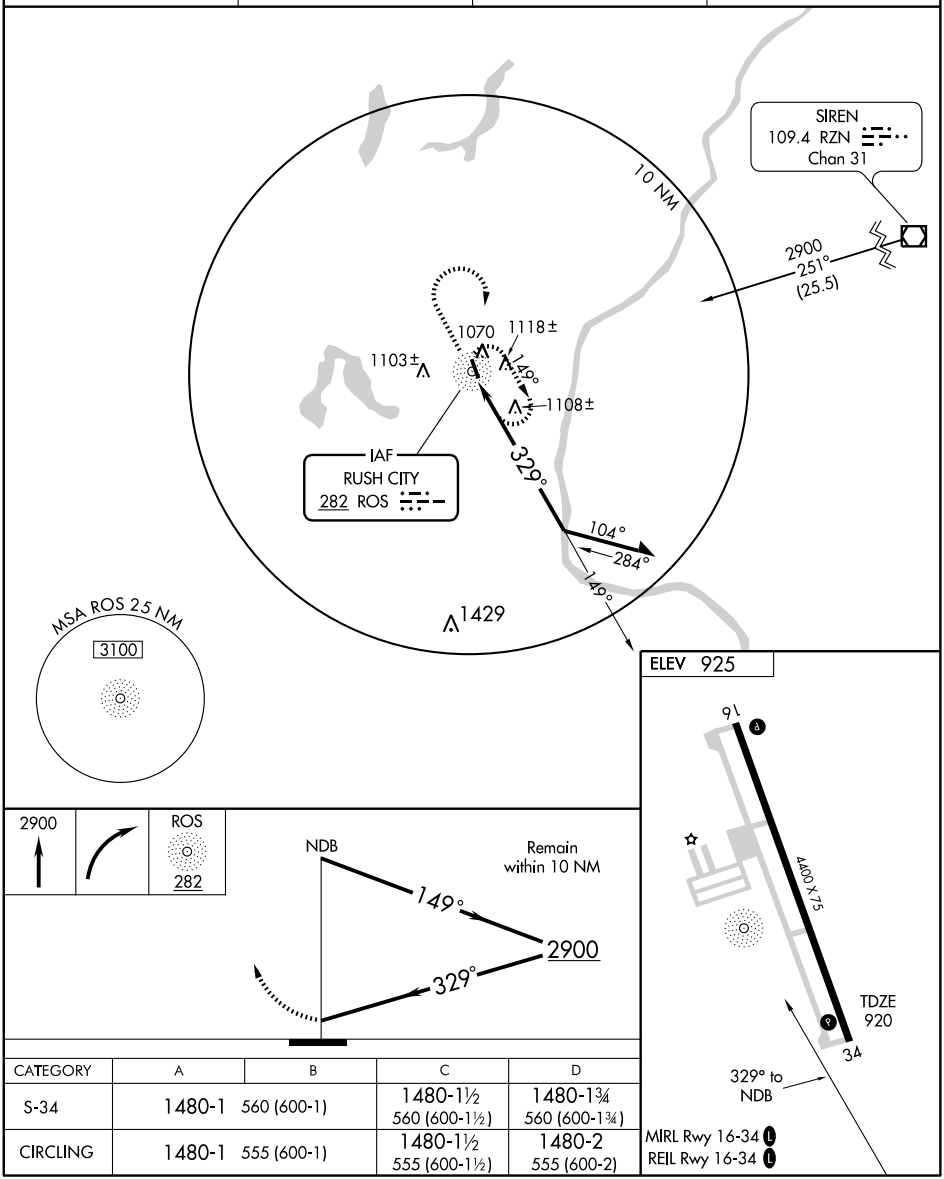
NDB RWY 34

RUSH CITY RGNL (ROS)

NA

MISSED APPROACH: Climb to 2900, then right turn direct ROS NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
282	121.05 397.9	121.725	122.9 L



CATEGORY	A	B	C	D
S-34	1480-1	560 (600-1)	1480-1½ 560 (600-1½)	1480-1¾ 560 (600-1¾)
CIRCLING	1480-1	555 (600-1)	1480-1½ 555 (600-1½)	1480-2 555 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3200
341°	TDZE	1209
	Apt Elev	1211

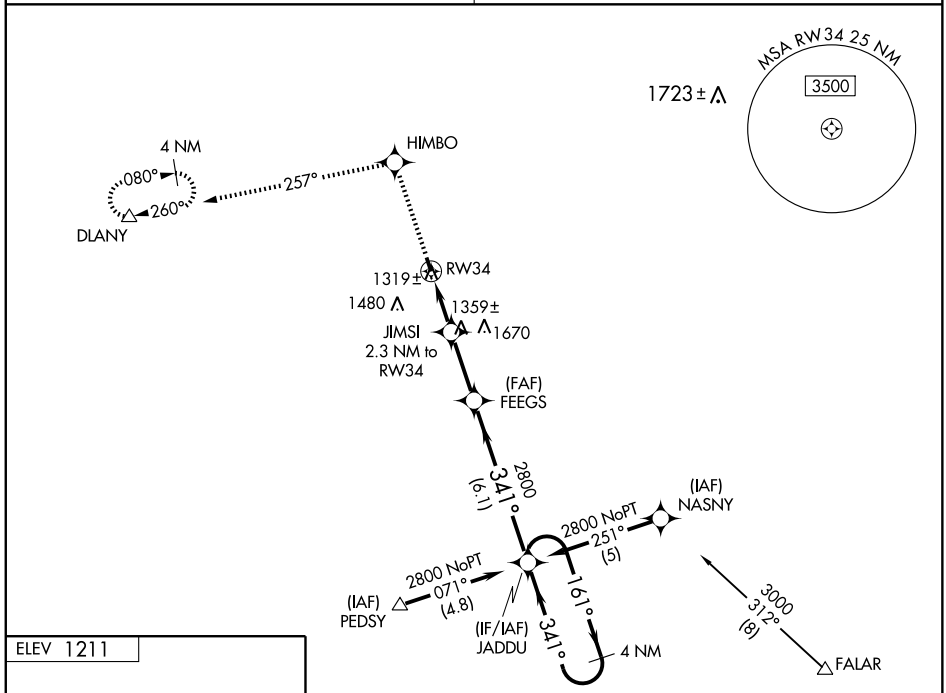
RNAV (GPS) RWY 34
RUSHFORD MUNI (55Y)

DME/DME RNP-0.3 NA
NA
Visibility reduction by helicopters NA.
Use Preston altimeter setting, when not received use Winona altimeter setting and increase all MDA 80 feet.

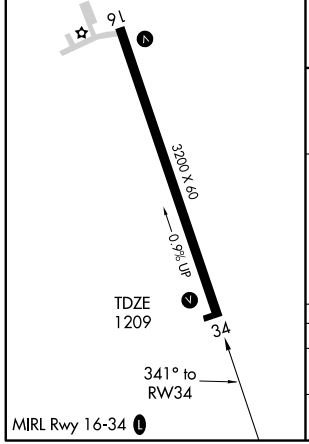
MISSED APPROACH: Climb to 3000 direct HIMBO and via 257° track to DLANY and hold.

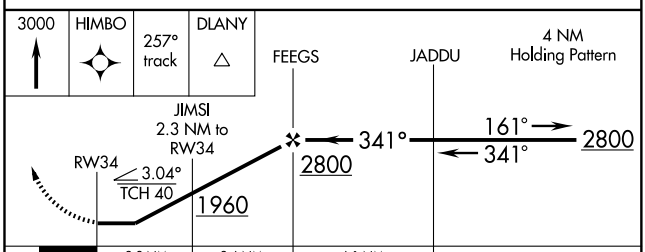
ROCHESTER APP CON ★
119.8 251.125

CTAF
122.9 L



Procedure NA for arrivals at FALAR via V24 eastbound and V246 southbound.





CATEGORY	A	B	C	D
LNAV MDA	1620-1 411 (500-1)		1620-1¼ 411 (500-1¼)	NA
CIRCLING	1720-1 509 (600-1)		1720-1½ 509 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

VORTAC ODI 117.9 Chan 126	APP CRS 249°	Rwy Idg N/A TDZE N/A Apt Elev 1211

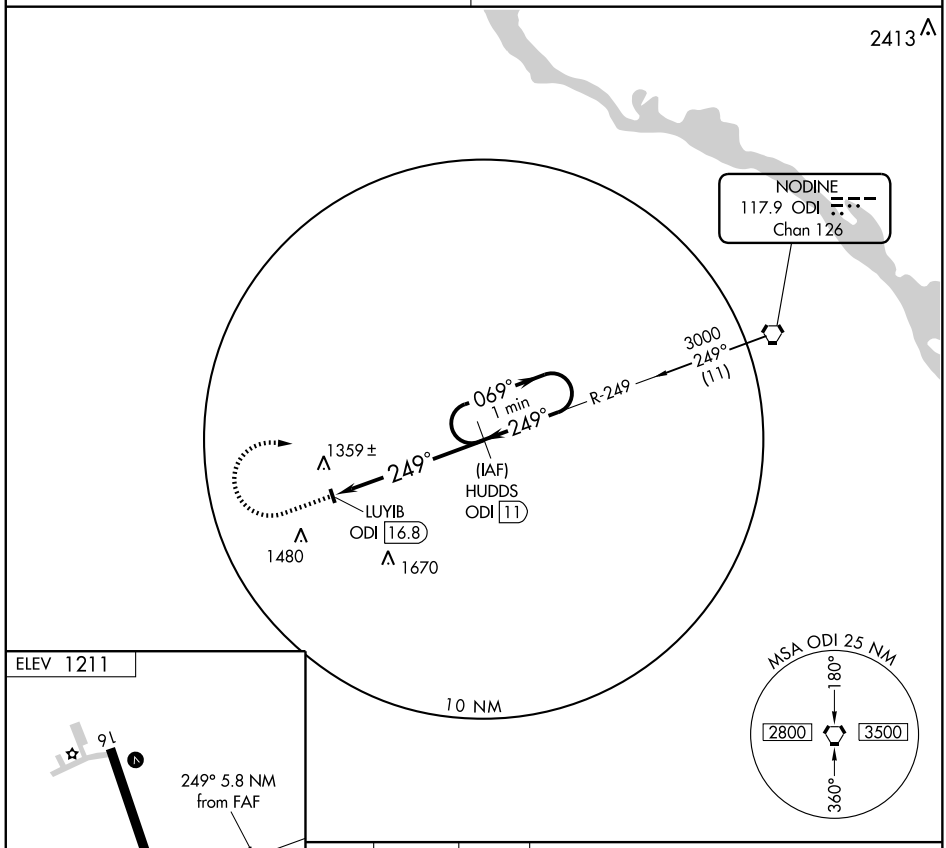
VOR/DME-A
RUSHFORD MUNI (55Y)

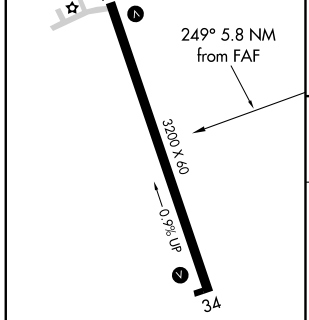
T
A NA Use Preston altimeter setting, when not received use Winona altimeter setting and increase all MDA 80 feet.

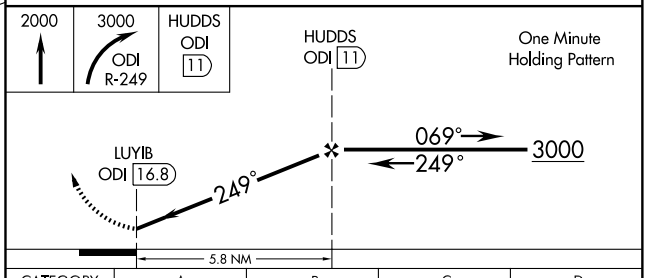
MISSED APPROACH: Climb to 2000, then climbing right turn to 3000 via ODI VORTAC R-249 to HUDDS/ODI 11 DME and hold.

ROCHESTER APP CON * 119.8 251.125

CTAF 122.9 L







CATEGORY	A	B	C	D
CIRCLING	1720-1	509 (600-1)	1720-1½ 509 (600-1½)	NA

MIRL Rwys 16-34 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3300
327°	TDZE	1234
	Apt Elev	1244

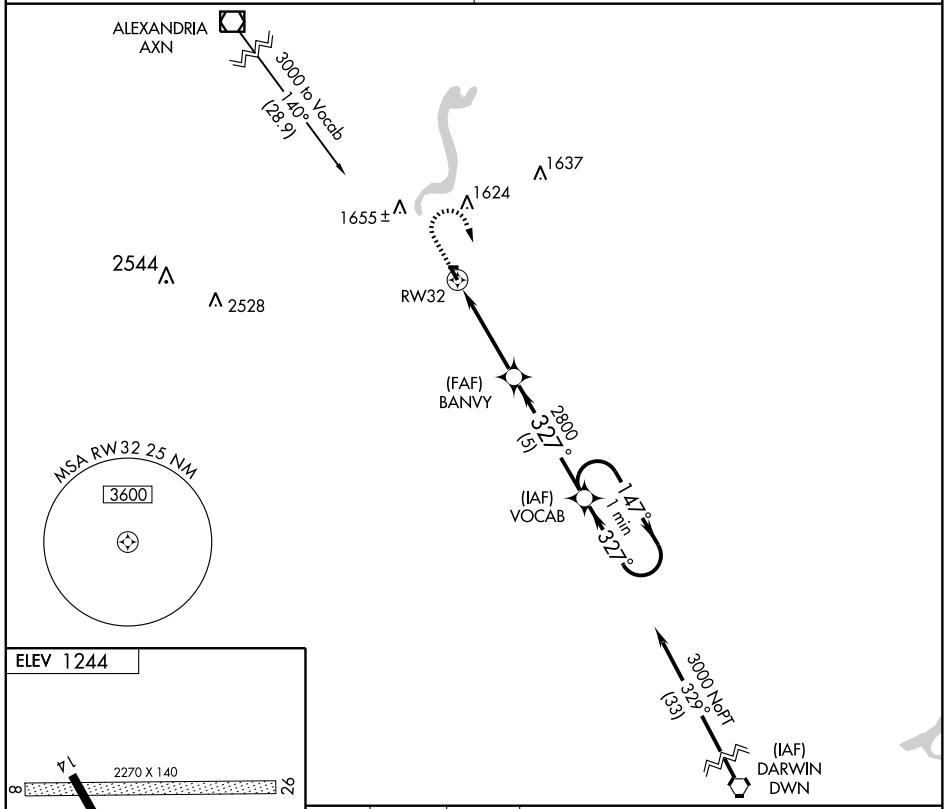
GPS RWY 32
SAUK CENTRE MUNI (D39)

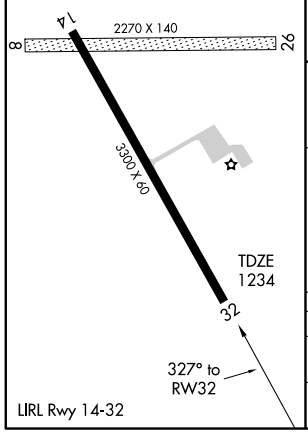
NA

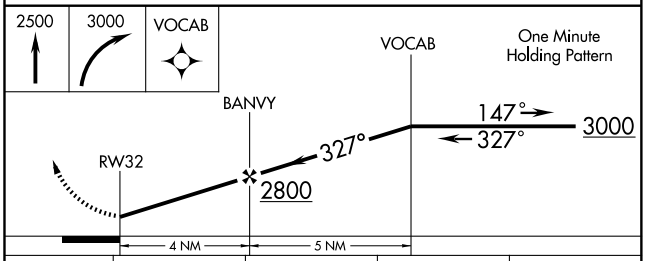
Use Alexandria Chandler Field altimeter setting.

MISSED APPROACH: Climb to 2500 then climbing right turn to 3000 direct VOCAB WP and hold.

MINNEAPOLIS CENTER	CTAF
126.1 269.2	122.9







CATEGORY	A	B	C	D
S-32	1780-1 546 (600-1)		1780-1½ 546 (600-1½)	NA
CIRCLING	1800-1 556 (600-1)		1820-1½ 576 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

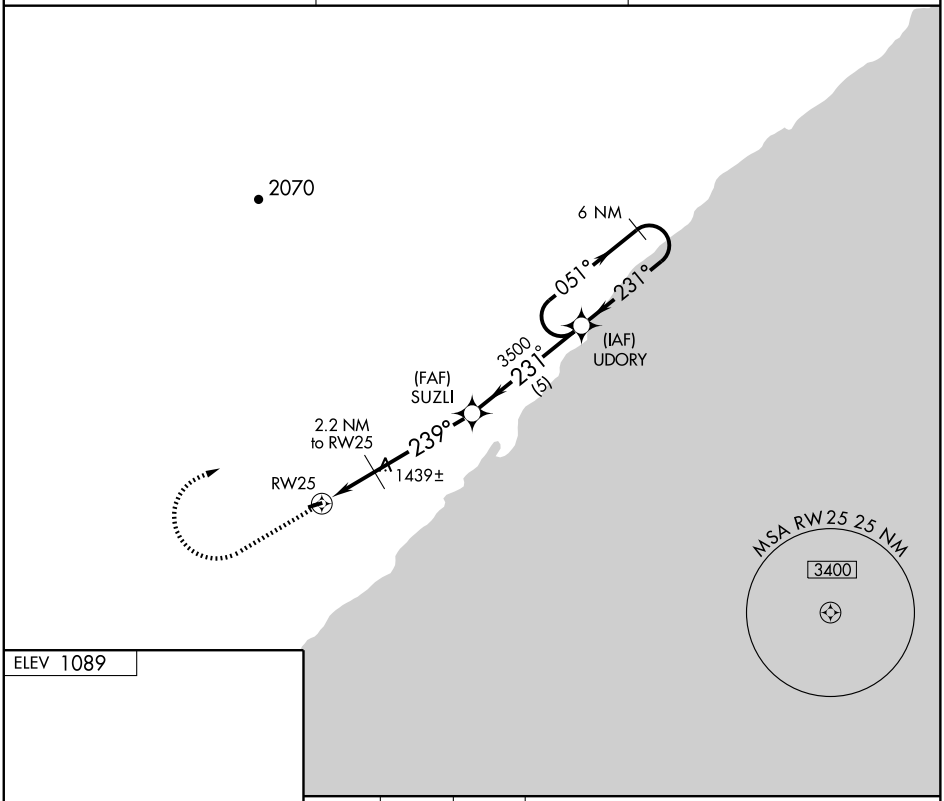
APP CRS	Rwy Idg	3200
239°	TDZE	1089
	Apt Elev	1089

GPS RWY 25
SILVER BAY MUNI (BFW)

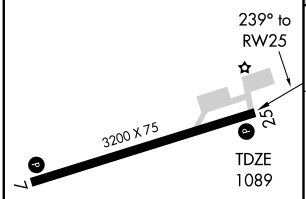
NA

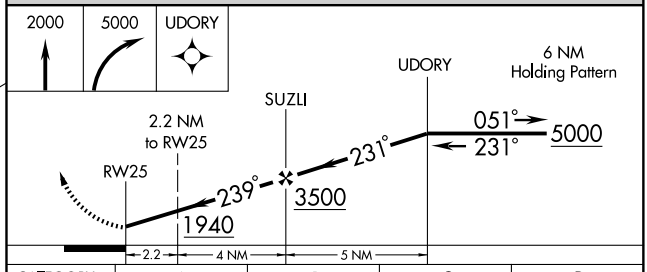
MISSED APPROACH: Climb to 2000 then climbing right turn to 5000 direct UDORY WP and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
350	134.55 290.5	122.9 L



ELEV 1089





CATEGORY	A	B	C	D
S-25	1540-1	451 (500-1)	NA	
CIRCLING	1700-1 611 (700-1)	1720-1 631 (700-1)	NA	

REIL Rwy 7 and 25 L
MIRL Rwy 7-25 L

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB BFW 350	APP CRS 264°	Rwy Idg 3200 TDZE 1089 Apt Elev 1089

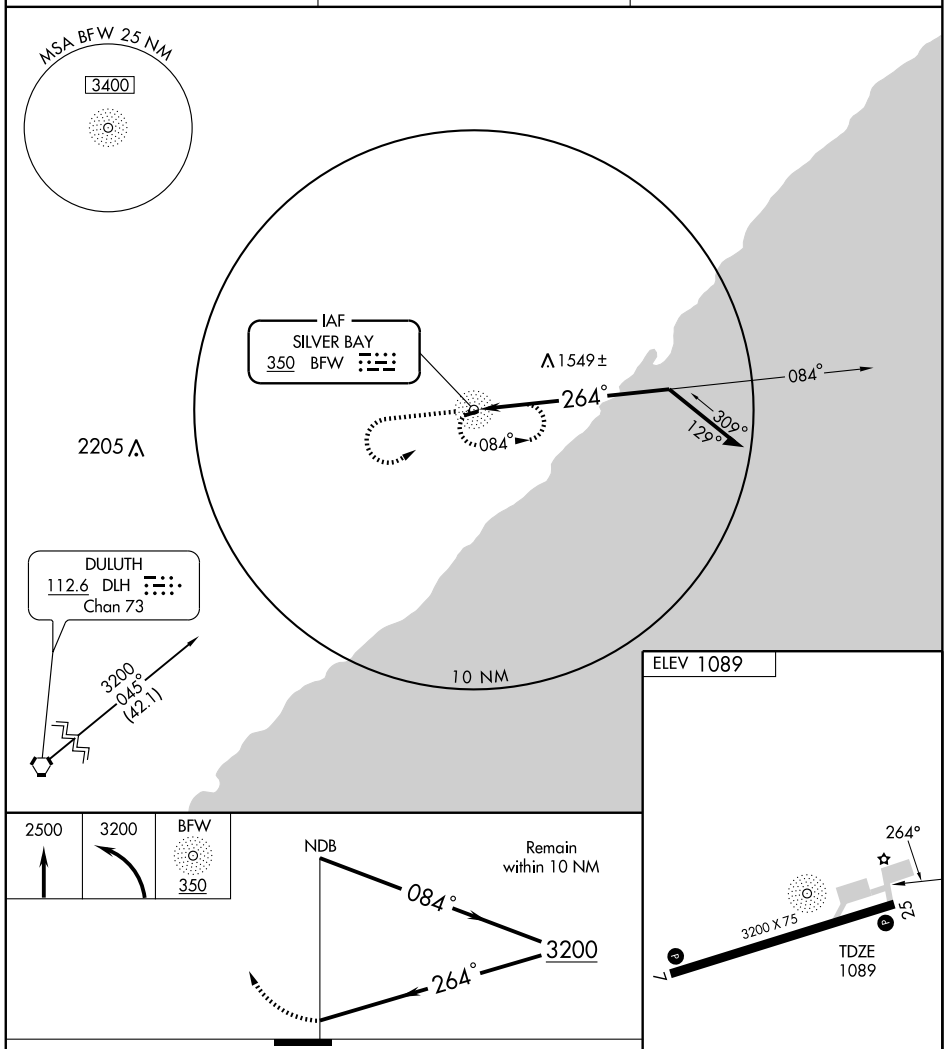
NDB RWY 25

SILVER BAY MUNI (BFW)

NA

MISSED APPROACH: Climb to 2500 then climbing left turn to 3200 direct BFW NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
350	134.55 290.5	122.9 L



CATEGORY	A	B	C	D
S-25	1900-1 811 (900-1)	1900-1¼ 811 (900-1¼)	NA	
CIRCLING	1900-1 811 (900-1)	1900-1¼ 811 (900-1¼)	NA	

REIL Rwy 7 and 25 L
MIRL Rwy 7-25 L

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3005
356°	TDZE	1623
	Apt Elev	1623

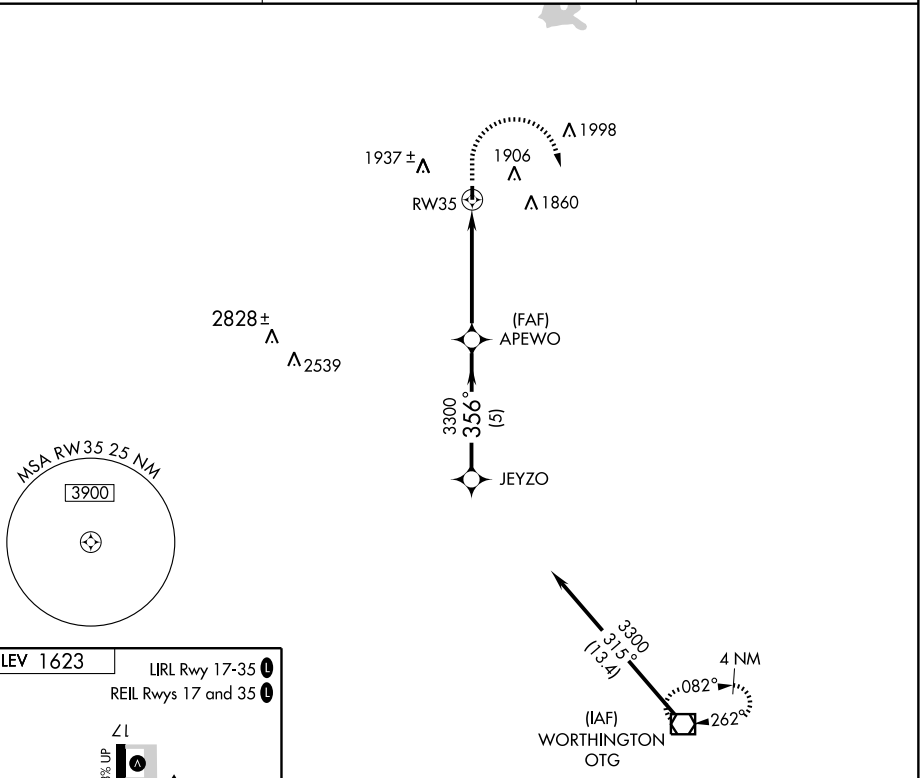
GPS RWY 35
SLAYTON MUNI (DVP)

NA

Use Worthington altimeter setting.

MISSED APPROACH: Climb to 3300, then right turn direct OTG VOR/DME and hold.

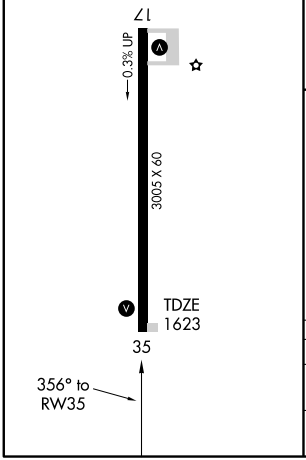
AWOS-3	MINNEAPOLIS CENTER	CTAF
118.55	132.05 317.4	122.9 L

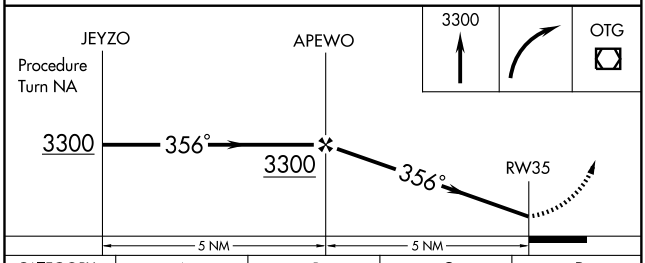


ELEV 1623

LIRL Rwy 17-35 L

REIL Rwys 17 and 35 L



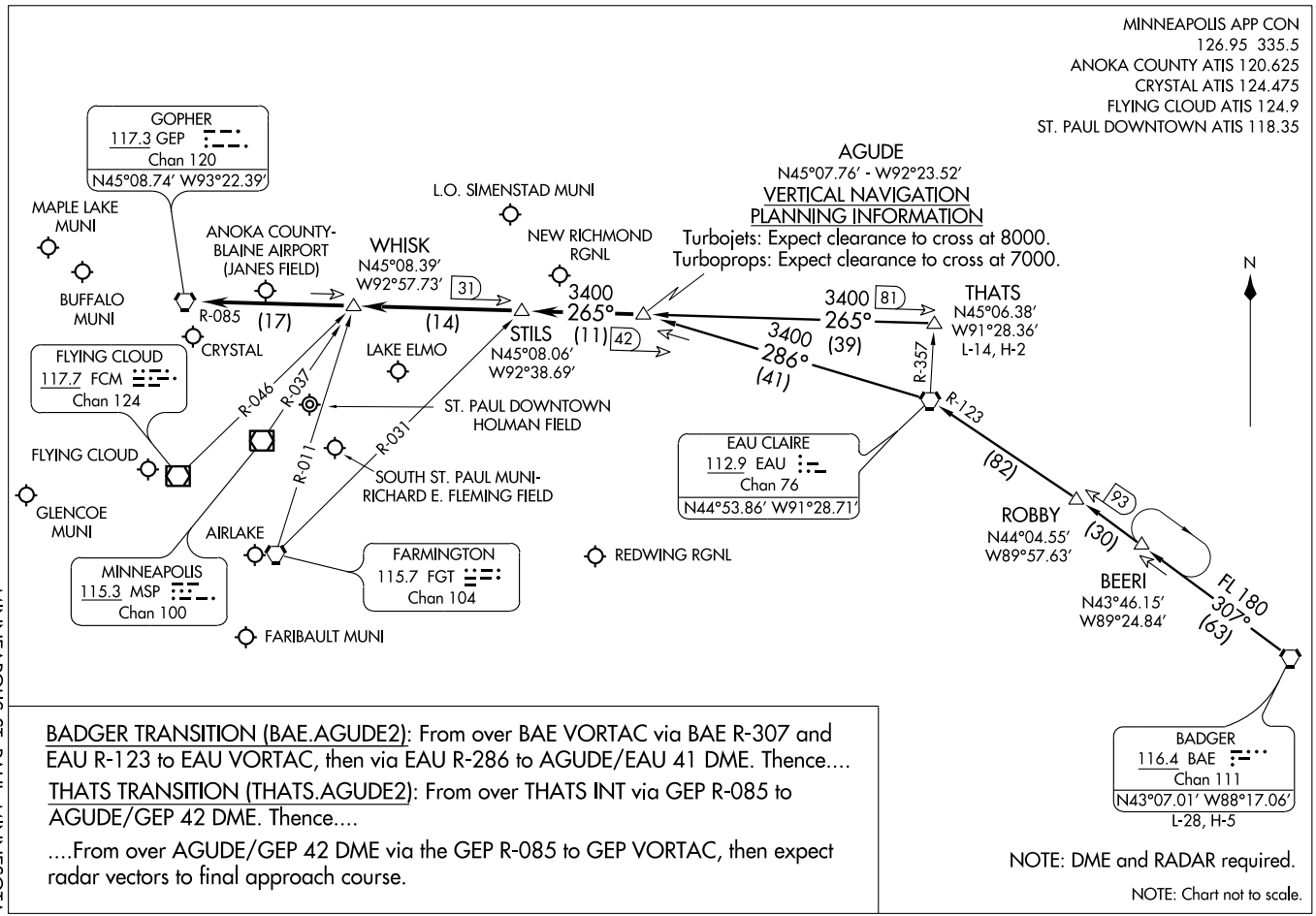


CATEGORY	A	B	C	D
S-35	2080-1 457 (500-1)		NA	
CIRCLING	2180-1 557 (600-1)	2220-1 597 (600-1)	NA	

NC-1. 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

LOC/DME I-SGS	APP CRS	Rwy Idg 4002
108.35	339°	TDZE 819
Chan 20 (Y)		Apt Elev 820

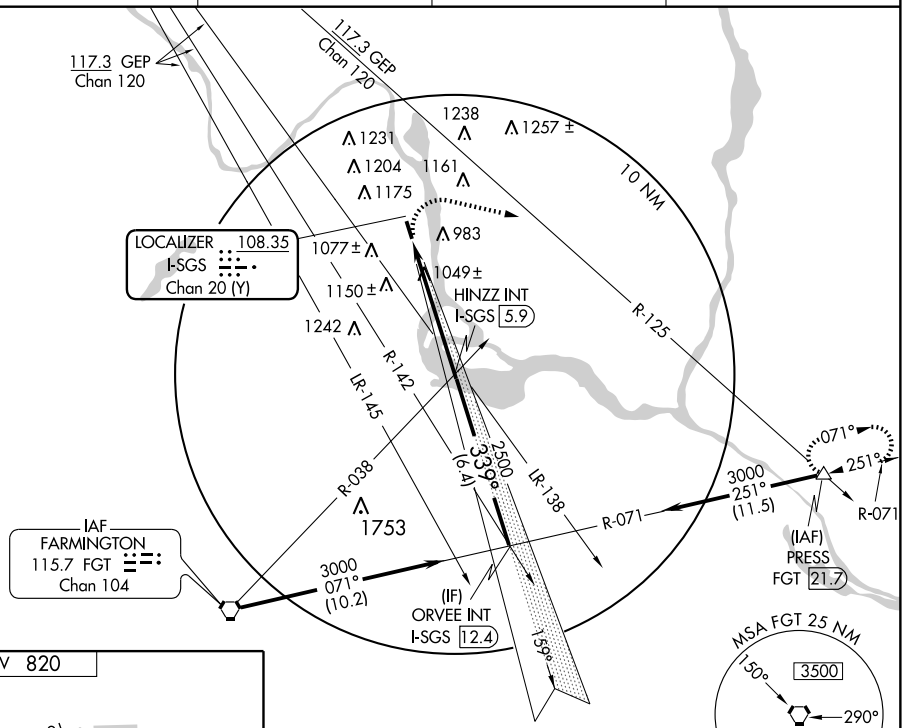
LOC RWY 34

SOUTH ST. PAUL MUNI-RICHARD E. FLEMING FIELD (SGS)

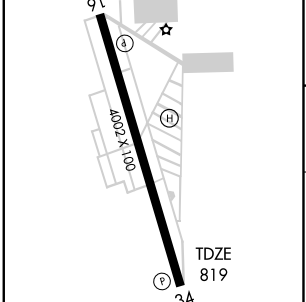
⚠ NA — When local altimeter setting not received, use Minneapolis-St. Paul Intl/Wold-Chamberlain altimeter setting and increase all MDAs 40 feet; and all visibilities ¼ mile.

MISSED APPROACH: Climbing right turn to 3000 via heading 100° and GEP VORTAC R-125 to PRESS Int/ FGT 21.7 DME and hold.

AWOS-3	MINNEAPOLIS APP CON	CLNC DEL	UNICOM
119.425	121.2 335.5	118.2	122.7 (CTAF) L

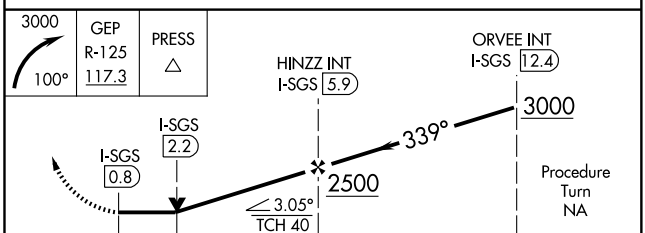


Procedure NA for arrival on FGT VORTAC via airway radials 011 CW 118.
Procedure NA for arrival at PRESS via V2-97 southeast bound.



FAF to MAP 5.1 NM

Knots	60	90	120	150	180
Min:Sec	5:06	3:24	2:33	2:02	1:42



CATEGORY	A	B	C	D
S-34	1300-1 481 (500-1)		1300-1¼ 481 (500-1¼)	1300-1½ 481 (500-1½)
CIRCLING	1300-1 480 (500-1)	1420-1 600 (600-1)	1540-2 720 (800-2)	1540-2¼ 720 (800-2¼)

NC-1, 03 JUN 2010 to 01 JUL 2010

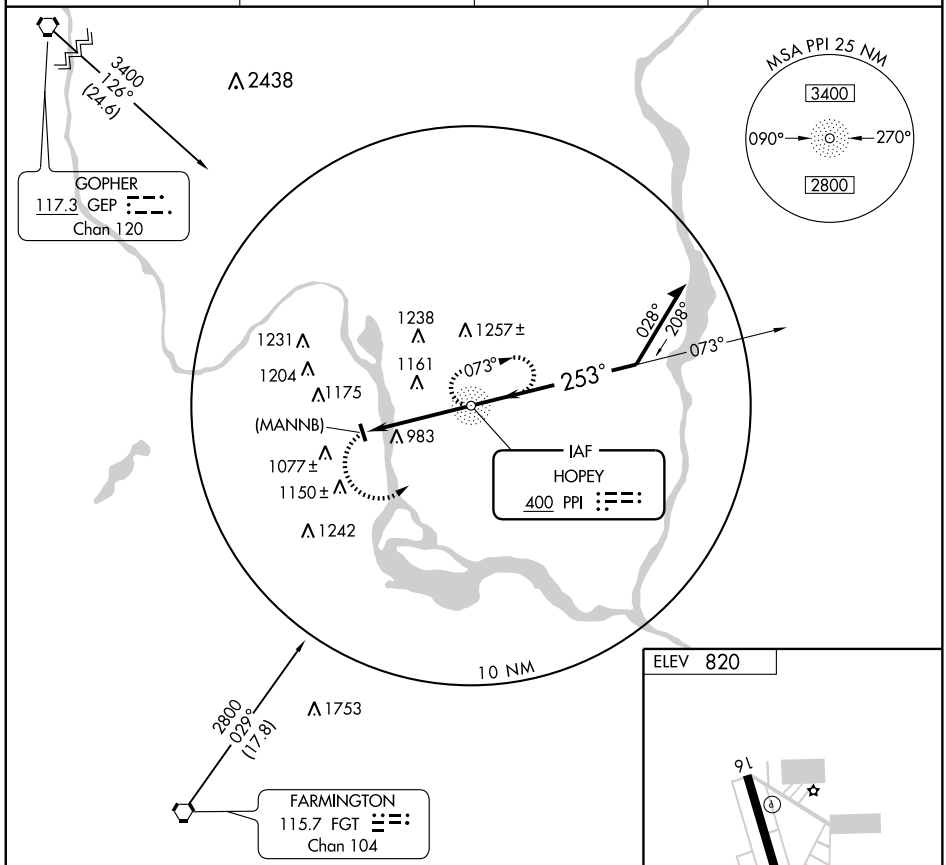
NDB PPI	APP CRS	Rwy Idg	N/A
400	253°	TDZE	N/A
		Apt Elev	820

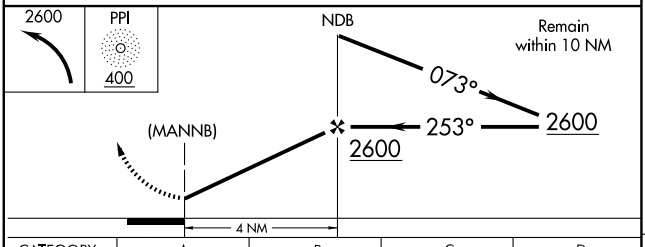
NDB or GPS-B

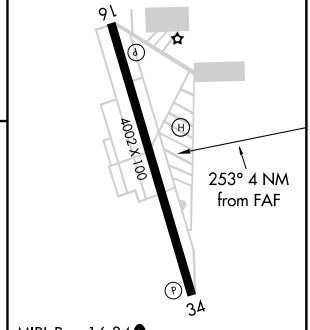
SOUTH ST. PAUL MUNI-RICHARD E. FLEMING FIELD (SGS)

MISSED APPROACH: Climbing left turn to 2600 direct PPI NDB and hold.

AWOS-3	MINNEAPOLIS APP CON	CLNC DEL	UNICOM
119.425	121.2 335.5	118.2	122.7 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	1480-1 660 (700-1)		1480-1¾ 660 (700-1¾)	1480-2 660 (700-2)

FAF to MAP 4 NM					
Knots	60	90	120	150	180
Min:Sec	4:00	2:40	2:00	1:36	1:20

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	4002
339°	TDZE	819
	Apt Elev	820

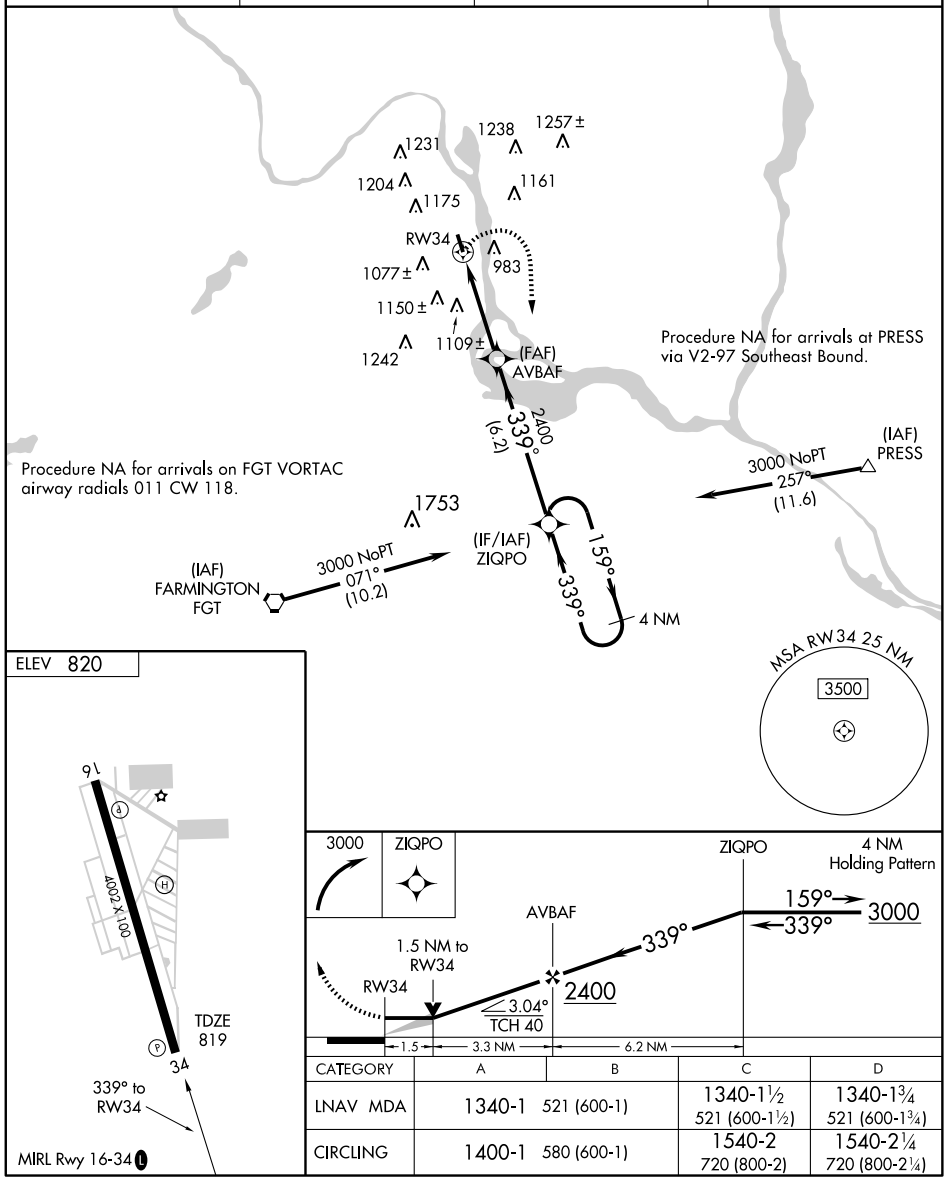
RNAV (GPS) RWY 34

SOUTH ST. PAUL MUNI-RICHARD E. FLEMING FIELD (SGS)

⚠ DME/DME RNP-0.3 NA. When local altimeter setting not received, use Minneapolis-St Paul Intl altimeter setting and increase all MDA 40 feet and increase Circling Cats. C and D visibility ¼ mile. VDP NA with Minneapolis-St Paul Intl altimeter setting.

MISSED APPROACH: Climbing right turn to 3000 direct ZIQPO and hold.

AWOS-3	MINNEAPOLIS APP CON	CLNC DEL	UNICOM
119.425	121.2 335.5	118.2	122.7 (CTAF) L



CATEGORY	A	B	C	D
LNAV MDA	1340-1	521 (600-1)	1340-1½ 521 (600-1½)	1340-1¾ 521 (600-1¾)
CIRCLING	1400-1	580 (600-1)	1540-2 720 (800-2)	1540-2¼ 720 (800-2¼)

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME RWF	APP CRS	Rwy Idg	3400
113.3	152°	TDZE	1072
Chan 80		Apt Elev	1072

VOR/DME or GPS RWY 13

SPRINGFIELD MUNI (D42)

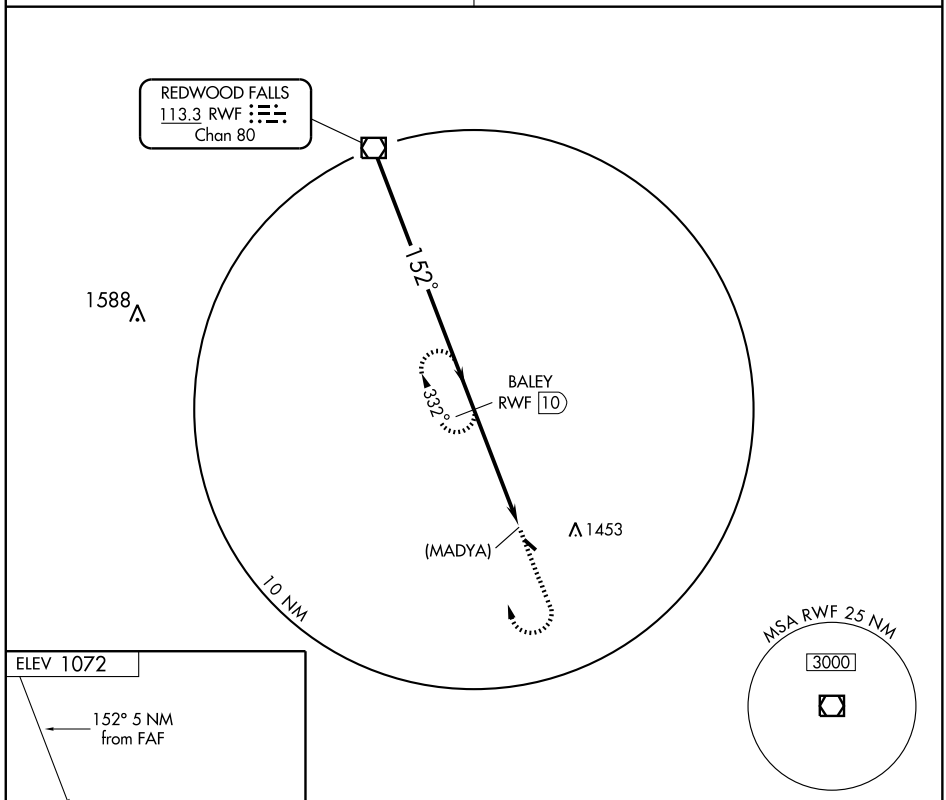
NA

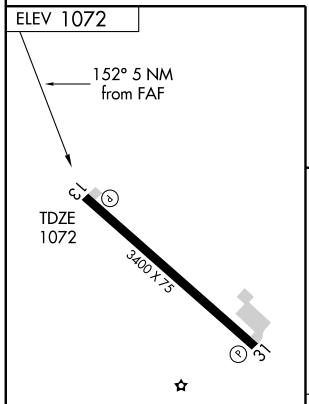
Use Redwood Falls, MN altimeter setting.

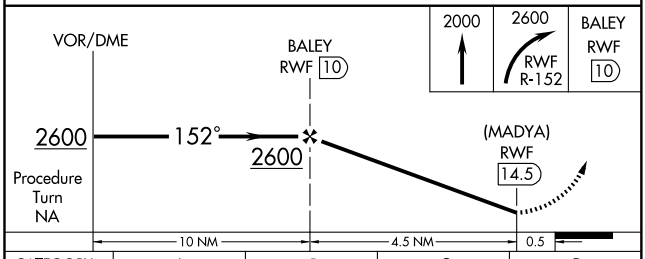
MISSED APPROACH: Climb to 2000 then climbing right turn to 2600 via RWF R-152 to BALEY 10 DME and hold.

MINNEAPOLIS CENTER
127.1 290.2

UNICOM
122.8 (CTAF) L







CATEGORY	A	B	C	D
S-13	1620-1	548 (600-1)	1620-1½ 548 (600-1½)	NA
CIRCLING	1620-1 548 (600-1)	1820-1¼ 748 (800-1¼)	1820-2¼ 748 (800-2¼)	NA

MIRL Rwy 13-31 L
REIL Rwys 13 and 31 L

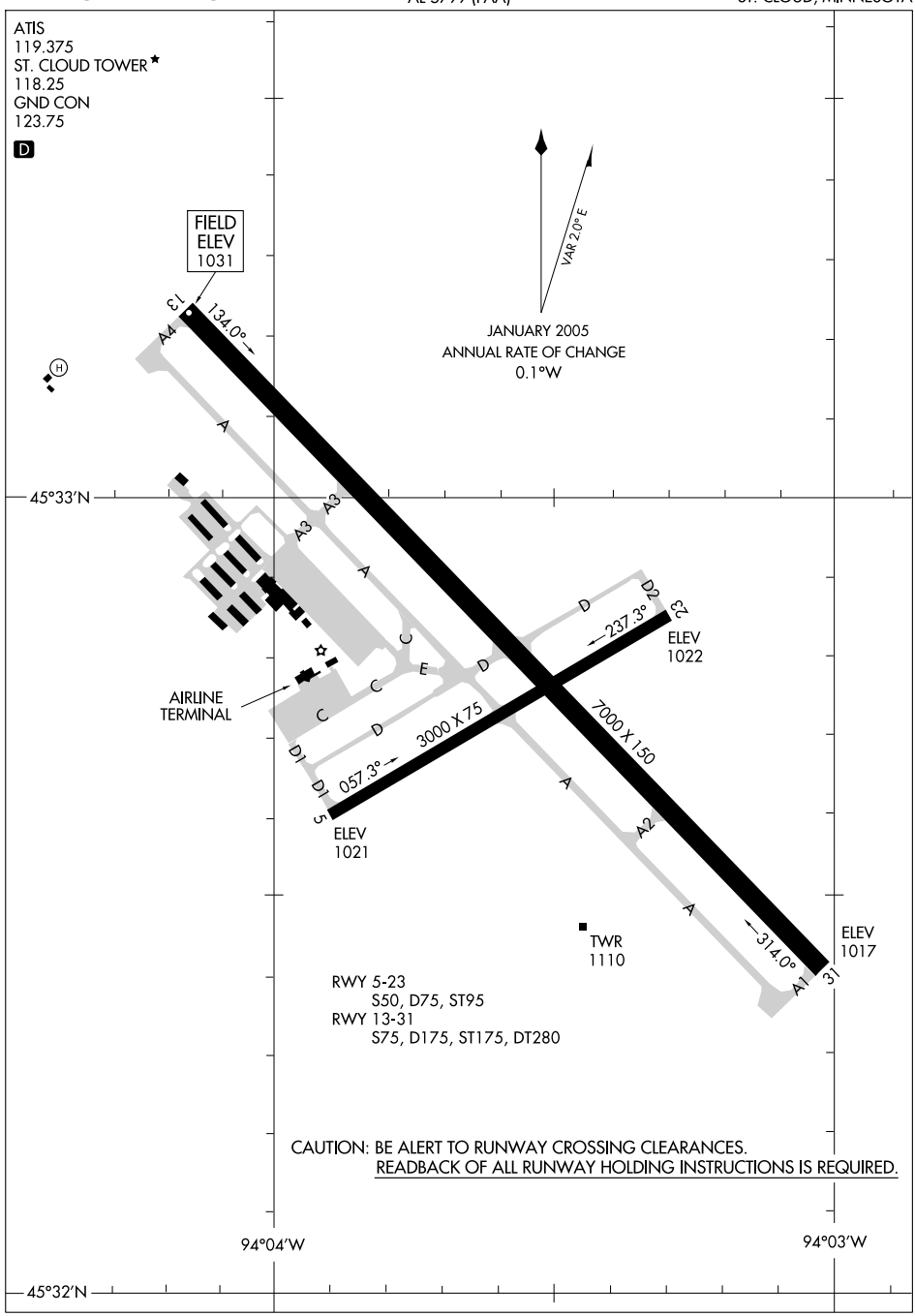
NC-1, 03 JUN 2010 to 01 JUL 2010

10042

AIRPORT DIAGRAM

AL-5799 (FAA)

ST. CLOUD RGNL (STC)
ST. CLOUD, MINNESOTA



NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-BPM	APP CRS	Rwy Idg	7000
111.9	133°	TDZE	1031
		Apt Elev	1031

ILS or LOC/DME RWY 13

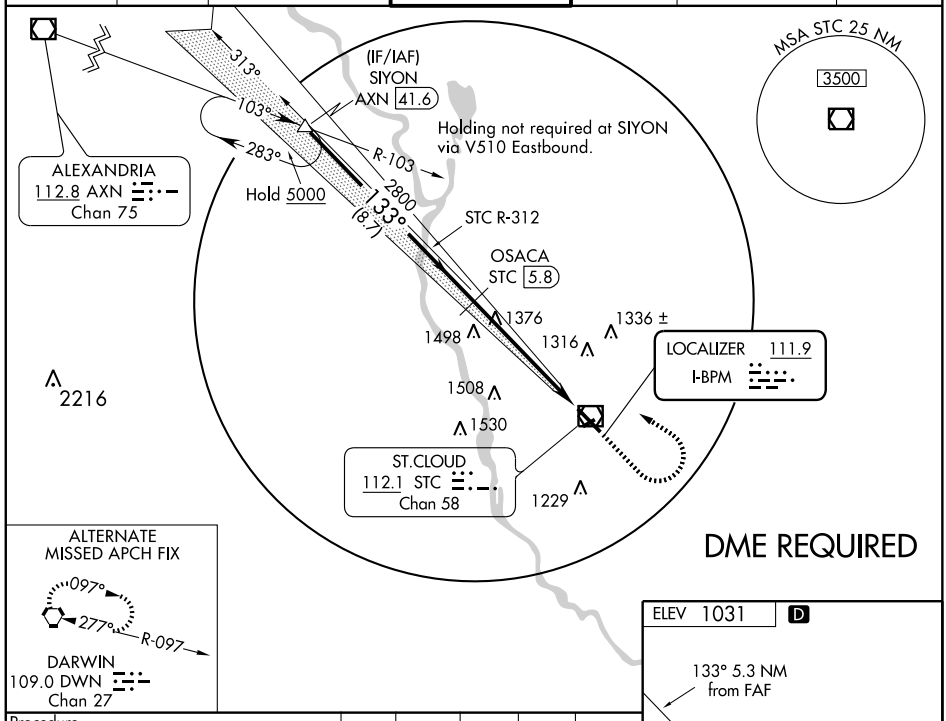
ST. CLOUD RGNL (STC)

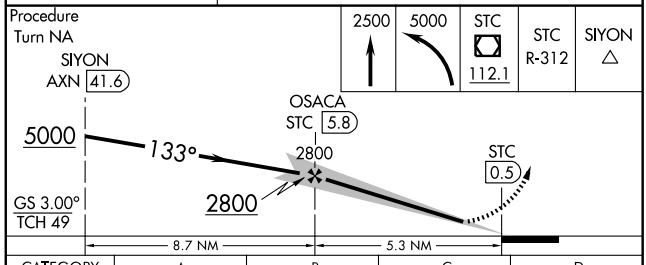
Circling to Rwy 5-23 NA at night. DME from STC VOR/DME. Simultaneous reception of I-BPM and STC DME required. DME required. When local altimeter setting not received, use Little Falls altimeter setting and increase DA to 1307 and all MDAs 80 feet. Increase S-LOC 13 Cats C/D and Circling Cats C/D visibility ¼ mile. For inoperative MALSR when using Little Falls altimeter setting, increase S-ILS 13 all Cats visibility ½ mile.

MALSR

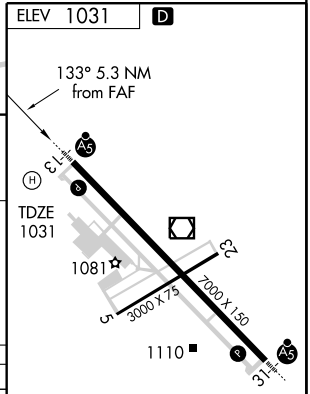
MISSED APPROACH: Climb to 2500 then climbing left turn to 5000 direct STC VOR/DME and via STC VOR/DME R-312 to SIYON/AXN VOR/DME 41.6 DME and hold.

ATIS	ASOS	MINNEAPOLIS CENTER	ST. CLOUD TOWER ★	GND CON	PRINCETON RADIO	UNICOM
119.375	112.1	121.05 397.9	118.25 (CTAF) L	123.75	122.5	123.5





CATEGORY	A	B	C	D
S-ILS 13	1231-½ 200 (200-½)			
S-LOC 13	1680-½ 649 (700-½)		1680-1¼ 649 (700-1¼)	1680-1½ 649 (700-1½)
CIRCLING	1680-1 649 (700-1)		1680-1¾ 649 (700-1¾)	1680-2 649 (700-2)



NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-STC	APP CRS	Rwy Idg	7000
111.9	313°	TDZE	1019
		Apt Elev	1031

ILS or LOC RWY 31

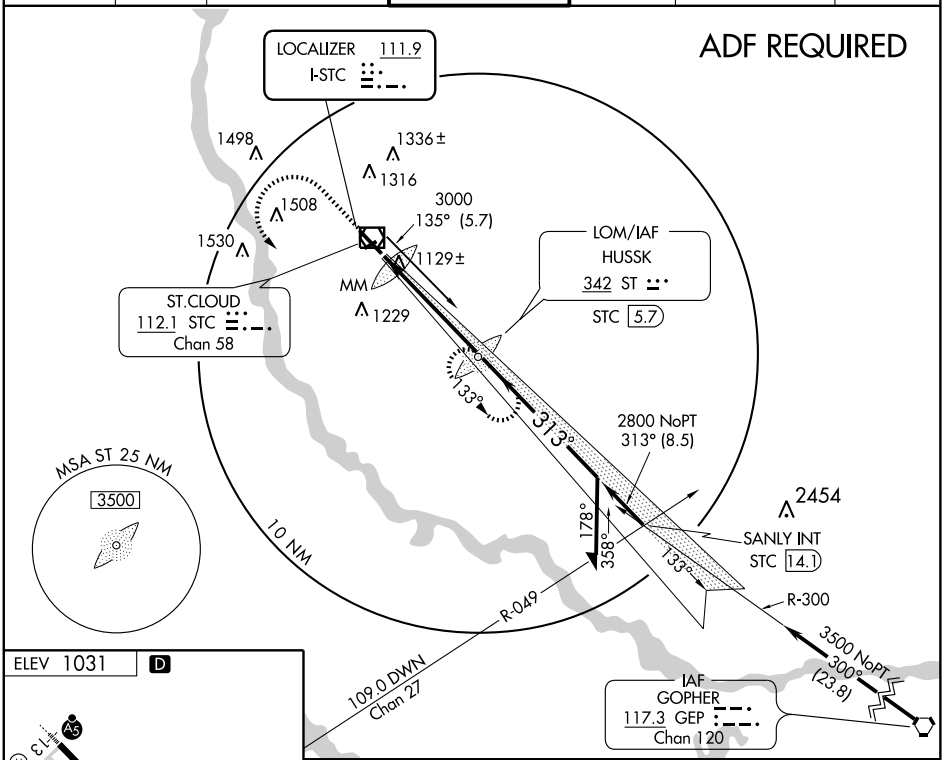
ST. CLOUD RGNL (STC)

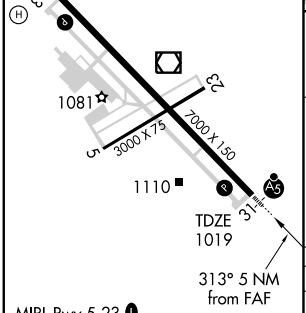
T NA When local altimeter setting not received, use Little Falls altimeter setting and increase all DA 76 feet and all MDA 80 feet.

MALSR

MISSED APPROACH: Climb to 3000, then left turn direct HUSSK LOM and hold.

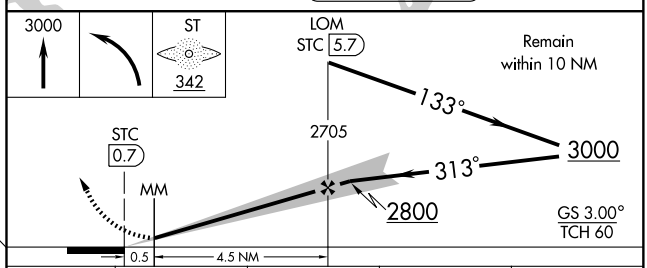
ATIS	ASOS	MINNEAPOLIS CENTER	ST. CLOUD TOWER ★	GND CON	PRINCETON RADIO	UNICOM
119.375	112.1	121.05 397.9	118.25 (CTAF) L	123.75	122.5	123.5





MIRL Rwy 5-23 L
HIRL Rwy 13-31 L

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40



CATEGORY	A	B	C	D
S-ILS 31	1219-½ 200 (200-½)			
S-LOC 31	1380-½ 361 (400-½)			1380-¾ 361 (400-¾)
CIRCLING	1500-1 469 (500-1)		1500-1½ 469 (500-1½)	1620-2 590 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

ST. CLOUD, MINNESOTA

AL-5799 (FAA)

APP CRS	Rwy Idg	3000
056°	TDZE	1022
	Apt Elev	1031

RNAV (GPS) RWY 5

ST. CLOUD RGNL (STC)

When local altimeter setting not received, use Little Falls altimeter setting and increase all MDA 80 feet and LNAV Cat C visibility ¼ mile. Visibility reduction by helicopterrs NA. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3000 direct JALTI WP and hold.

ATIS	ASOS	MINNEAPOLIS CENTER	ST. CLOUD TOWER ★	GND CON	PRINCETON RADIO	UNICOM
119.375	112.1	121.05 397.9	118.25 (CTAF) L	123.75	122.5	123.5

Procedure NA for arrivals at OKOMY WP via V2 Northwestbound.

OKOMY

3300 130° (15.6)

2216

(IAF) KABEY

3000 NoPT 146° (5)

(IF/IAF) HUBOX

056° 236° 4 NM

3000 NoPT 327° (5)

(IAF) JAPNU

Procedure NA for arrivals at DWN VORTAC on airway radials 321 CW 078.

3000 026° (19.8)

DARWIN DWN

1498 1336± 1316 1508 1530 1179± 1229

2700 056° (6)

(FAF) ILUDE

RW05

4 NM 056° 236° JALTI

MSA RW05 25 NM 3500

4 NM Holding Pattern

HUBOX

ILUDE

3000 236° 056° 056° 2700

RW05

3.09° TCH 40

6 NM 5 NM

3000 JALTI

CATEGORY	A	B	C	D
LNAV MDA	1400-1 378 (400-1)			NA
CIRCLING	1500-1 469 (500-1)		1500-1½ 469 (500-1½)	NA

ELEV 1031 D

13 31 23 5 1081 7000 X 150 3000 X 75 TDZE 1022 1110

056° to RW05

MIRL Rwy 5-23 L

HIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	7000
CH 82013	133°	TDZE	1031
W13A		Apt Elev	1031

RNAV (GPS) RWY 13

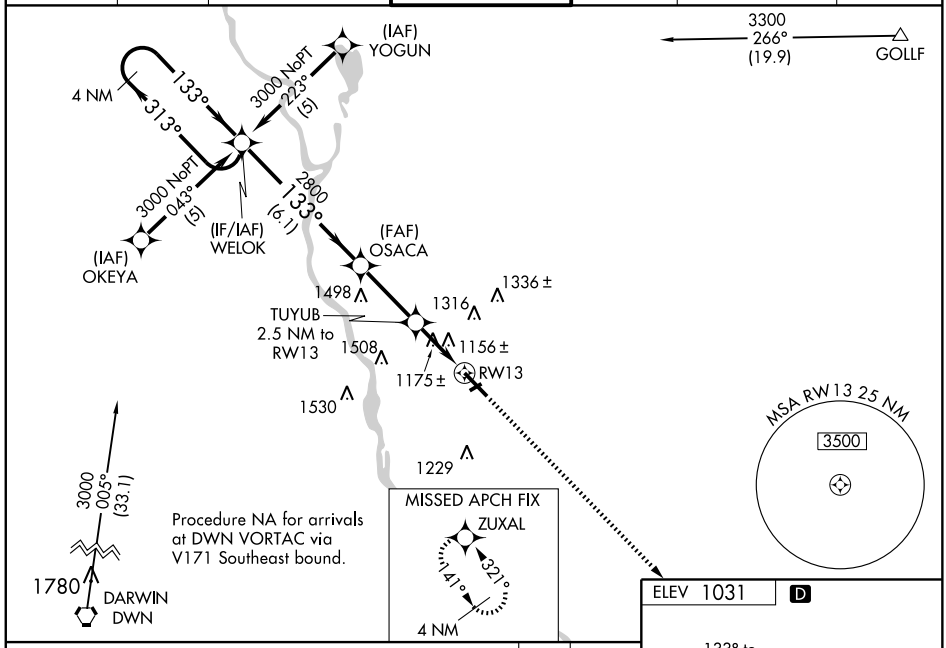
ST. CLOUD RGNL (STC)

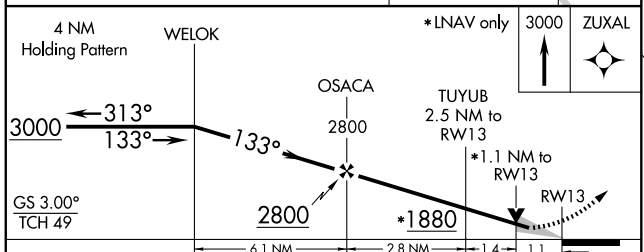
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 47°C (116°F). DME/DME RNP-0.3 NA. VDP and Baro-VNAV NA when using Little Falls altimeter setting. When local altimeter setting not received, use Little Falls altimeter setting and increase all DA 76 feet and all MDA 80 feet. Increase LNAV/ VNAV visibility ¼ mile all Cats. Circling to Rwy 5-23 NA at night. For inoperative MALSR, increase LNAV Cat D visibility ¼ mile. For inoperative MALSR when using Little Falls altimeter setting, increase LPV all Cats visibility ½ mile.

MALSR

MISSED APPROACH: Climb to 3000 direct ZUXAL and hold.

ATIS	ASOS	MINNEAPOLIS CENTER	ST. CLOUD TOWER ★	GND CON	PRINCETON RADIO	UNICOM
119.375	112.1	121.05 397.9	118.25 (CTAF) L	123.75	122.5	123.5





CATEGORY	A	B	C	D
LPV DA	1231-½ 200 (200-½)			
LNAV/ VNAV DA	1455-1 424 (500-1)			
LNAV MDA	1440-½ 409 (500-½)		1440-¾ 409 (500-¾)	1440-1 409 (500-1)
CIRCLING	1500-1 469 (500-1)		1500-1½ 469 (500-1½)	1620-2 589 (600-2)

MIRL Rwy 5-23 L
HIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

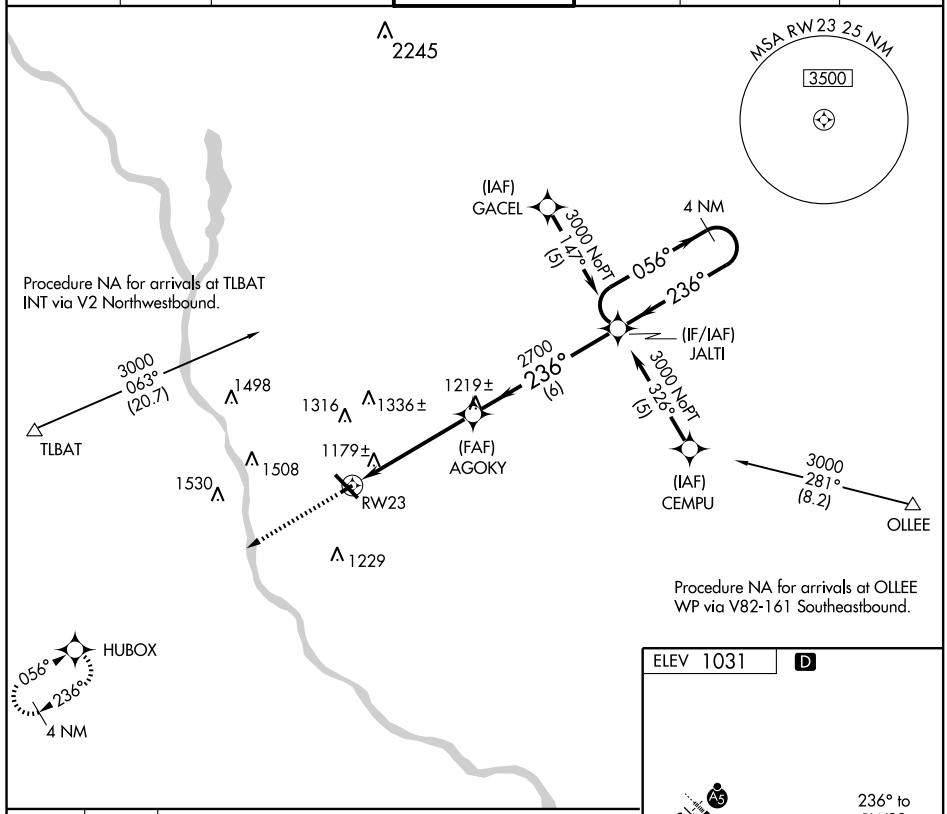
APP CRS	Rwy Idg	3000
236°	TDZE	1022
	Apt Elev	1031

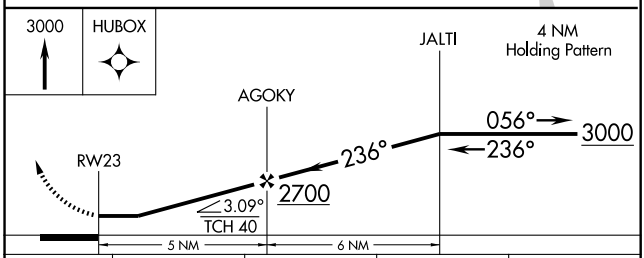
RNAV (GPS) RWY 23
ST. CLOUD RGNL (STC)

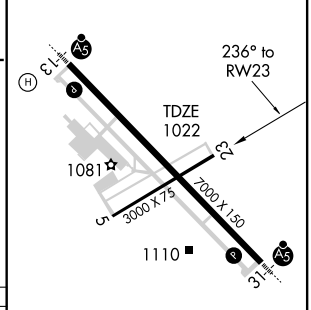
When local altimeter setting not received, use Little Falls altimeter setting and increase all MDA 80 feet and LNAV Cat C visibility ¼ mile.
Visibility reduction by helicopters NA. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3000 direct HUBOX WP and hold.

ATIS	ASOS	MINNEAPOLIS CENTER	ST. CLOUD TOWER ★	GND CON	PRINCETON RADIO	UNICOM
119.375	112.1	121.05 397.9	118.25 (CTAF) L	123.75	122.5	123.5







CATEGORY	A	B	C	D
LNAV MDA	1440-1	418 (500-1)	1440-1¼ 418 (500-1¼)	NA
CIRCLING	1500-1	469 (500-1)	1500-1½ 469 (500-1½)	NA

MIRL Rwy 5-23 L
HIRL Rwy 13-31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 61213 W31A	APP CRS 313°	Rwy Idg 7000 TDZE 1020 Apt Elev 1031

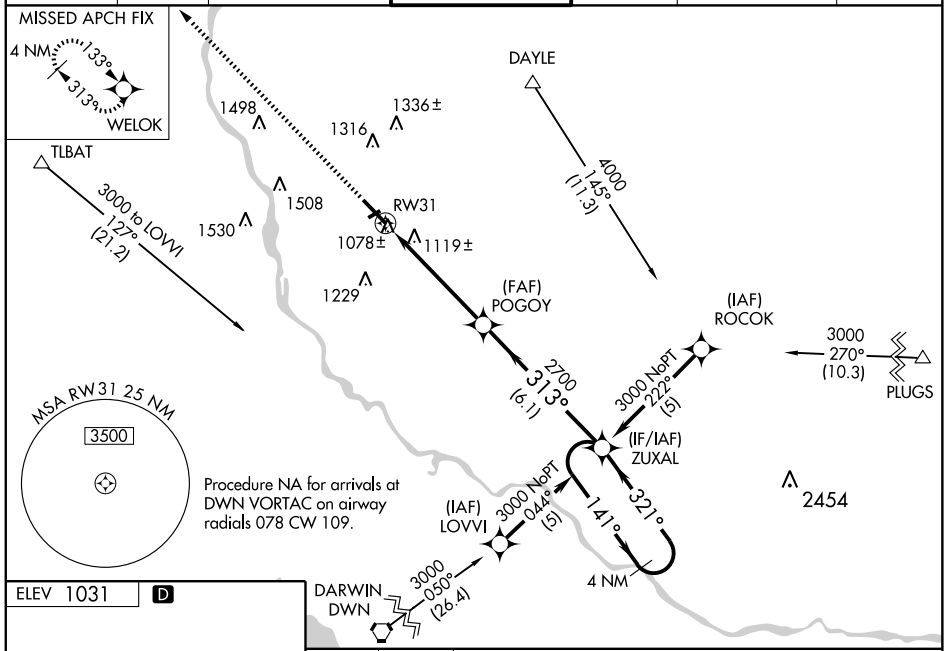
RNAV (GPS) RWY 31
ST. CLOUD RGNL (STC)

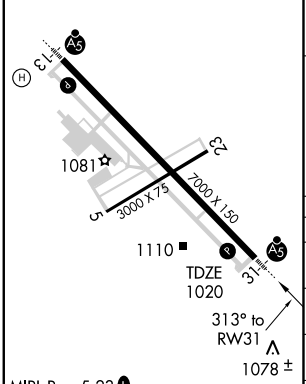
DME/DME RNP-0.3 NA. Circling to Rwy 5-23 NA at night. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). When local altimeter setting not received, use Little Falls altimeter setting and increase all DA 76 feet and all MDA 80 feet. Increase LNAV/ VNAV visibility ¼ mile all Cats. For inoperative MALSR, increase LNAV Cat D visibility ¼ mile. For inoperative MALSR when using Little Falls altimeter setting, increase LPV all Cats visibility ½ mile. Baro-VNAV and VDP NA when using Little Falls altimeter setting.

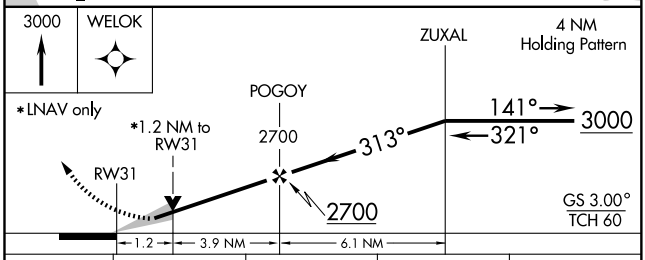
MALSR

MISSED APPROACH: Climb to 3000 direct WELOK and hold.

ATIS	ASOS	MINNEAPOLIS CENTER	ST. CLOUD TOWER ★	GND CON	PRINCETON RADIO	UNICOM
119.375	112.1	121.05 397.9	118.25 (CTAF) L	123.75	122.5	123.5







CATEGORY	A	B	C	D
LPV DA	1220-½ 200 (200-½)			
LNAV/ VNAV DA	1379-¾ 359 (400-¾)			
LNAV MDA	1440-½ 420 (500-½)		1440-¾ 420 (500-¾)	1440-1 420 (500-1)
CIRCLING	1500-1 469 (500-1)		1500-1½ 469 (500-1½)	1620-2 589 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME STC	APP CRS	Rwy Idg	7000
112.1	126°	TDZE	1031
Chan 58		Apt Elev	1031

VOR/DME RWY 13

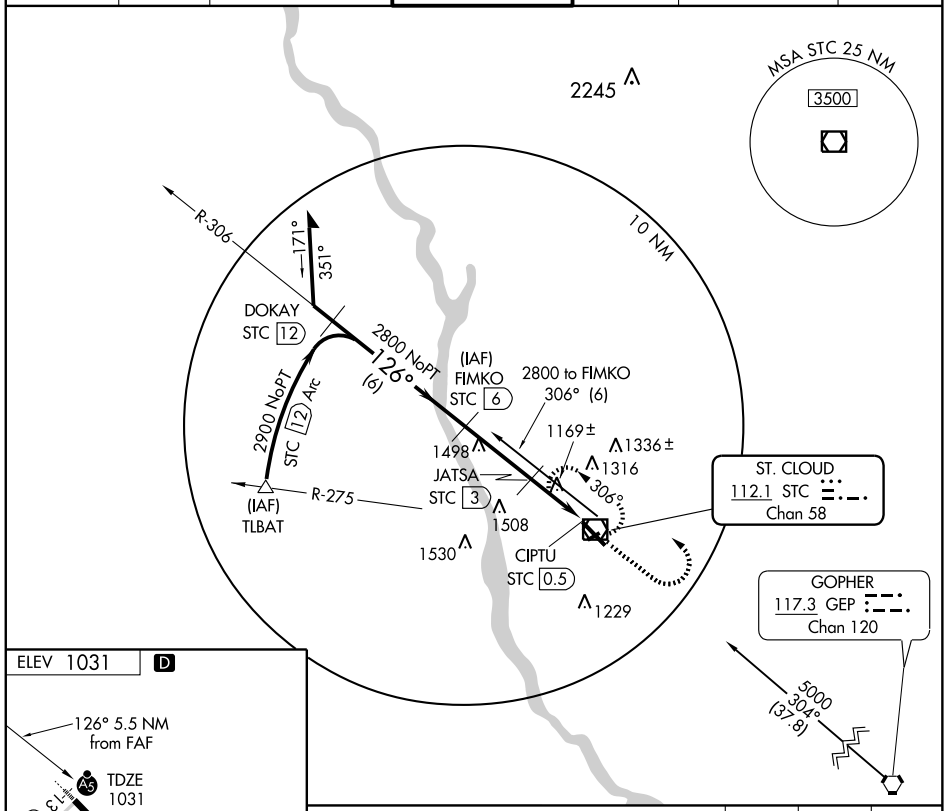
ST. CLOUD RGNL (STC)

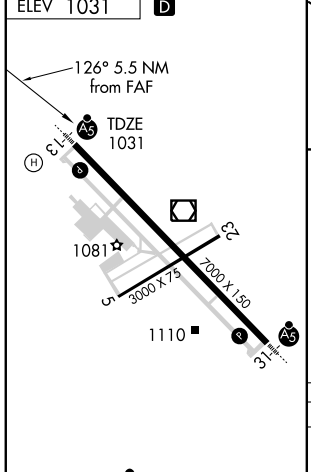
For inoperative MALSR, increase Cat D visibility to 1¼. When local altimeter setting not received, use Little Falls altimeter setting and increase all MDA 80 feet.

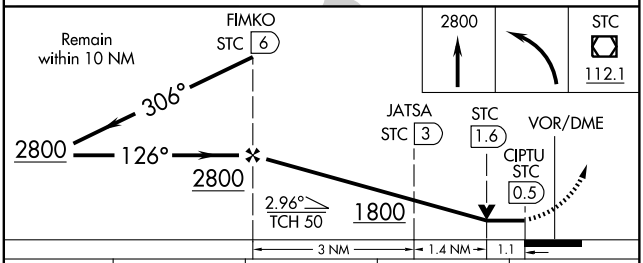
MALSR

MISSED APPROACH: Climb to 2800, then left turn direct STC VOR/DME and hold.

ATIS	ASOS	MINNEAPOLIS CENTER	ST. CLOUD TOWER ★	GND CON	PRINCETON RADIO	UNICOM
119.375	112.1	121.05 397.9	118.25 (CTAF) L	123.75	122.5	123.5







CATEGORY	A	B	C	D
S-13	1440-½ 409 (500-½)		1440-¾ 409 (500-¾)	1440-1 409 (500-1)
CIRCLING	1500-1 469 (500-1)		1500-1½ 469 (500-1½)	1620-2 590 (600-2)

MIRL Rwy 5-23 L
HIRL Rwy 13-31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME STC	APP CRS	Rwy Idg	7000
112.1	320°	TDZE	1019
Chan 58		Apt Elev	1031

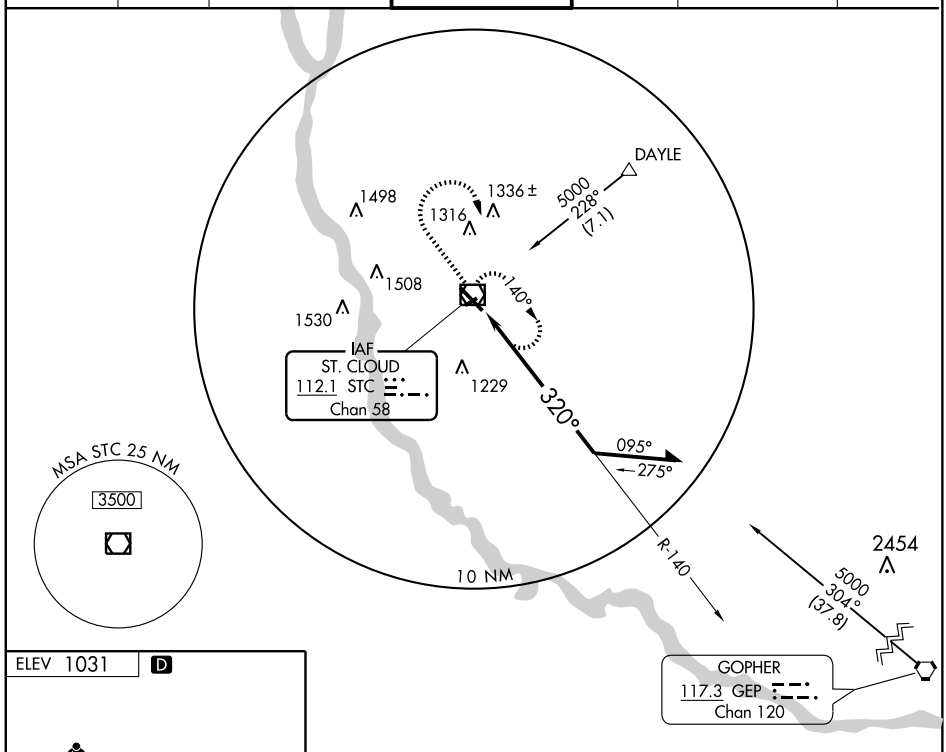
VOR RWY 31
ST. CLOUD RGNL (STC)

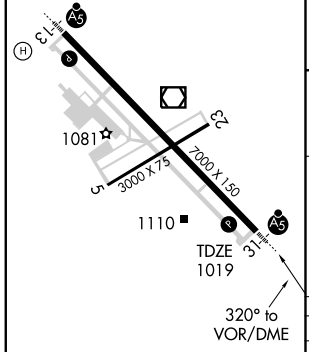
For inoperative MALSR, increase Cat D visibility to 1¼. When local altimeter setting not received, use Little Falls altimeter setting and increase all MDA 80 feet.

MALSR

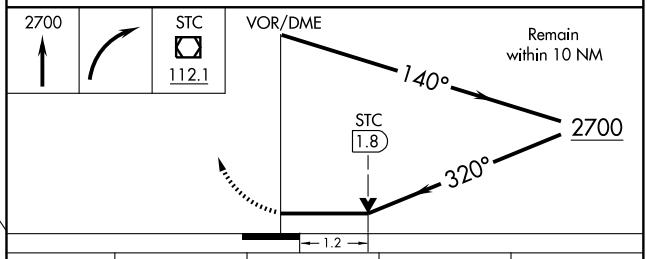
MISSED APPROACH: Climb to 2700, then right turn direct STC VOR/DME and hold.

ATIS	ASOS	MINNEAPOLIS CENTER	ST. CLOUD TOWER ★	GND CON	PRINCETON RADIO	UNICOM
119.375	112.1	121.05 397.9	118.25 (CTAF) L	123.75	122.5	123.5





MIRL Rwy 5-23 L
HIRL Rwy 13-31 L



CATEGORY	A	B	C	D
S-31	1440-½	421 (500-½)	1440-¾ 421 (500-¾)	1440-1 421 (500-1)
CIRCLING	1500-1	469 (500-1)	1500-1½ 469 (500-1½)	1620-2 590 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB JYG 260	APP CRS 340°	Rwy Idg 4000 TDZE 1067 Apt Elev 1067

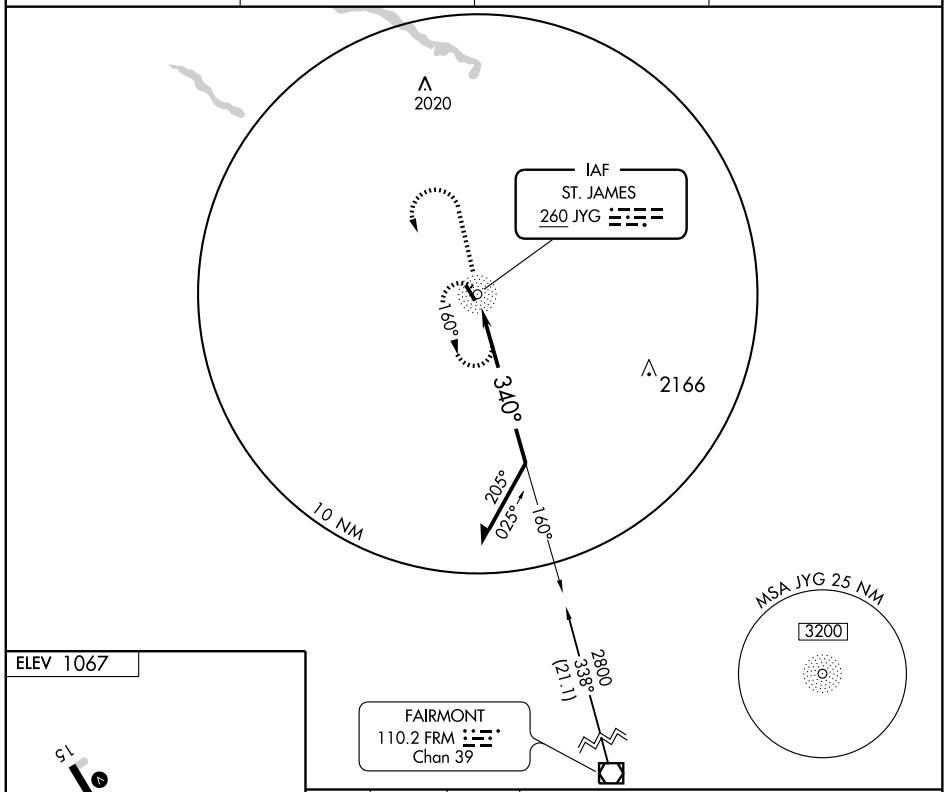
NDB RWY 33

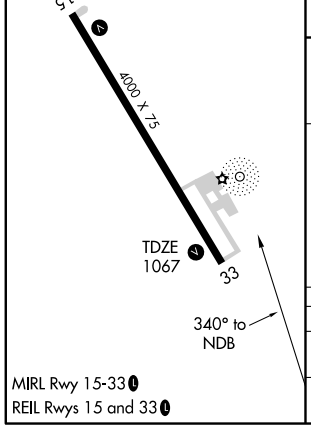
ST. JAMES MUNI (JYG)

NA

MISSED APPROACH: Climb to 2200 then climbing left turn to 2800 direct JYG NDB and hold.

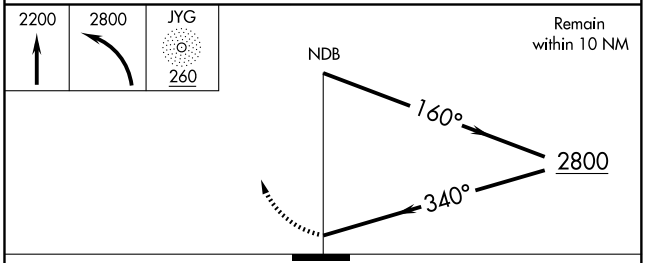
AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
260	127.75 257.7	121.725	122.9 L





MIRL Rwy 15-33 L

REIL Rwys 15 and 33 L



CATEGORY	A	B	C	D
S-33	1620-1	553 (600-1)	NA	
CIRCLING	1620-1	553 (600-1)	NA	

NC-1, 03 JUN 2010 to 01 JUL 2010

ST. JAMES, MINNESOTA

AL-9192 (FAA)

RNAV (GPS) RWY 15

ST. JAMES MUNI (JYG)

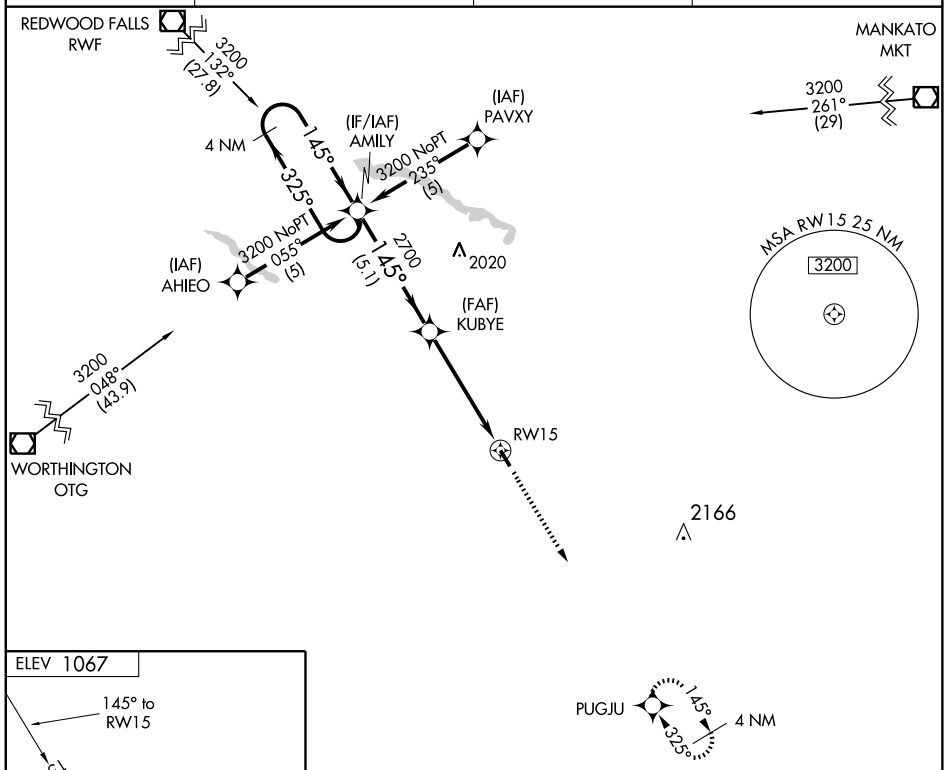
APP CRS	Rwy Idg	4000
145°	TDZE	1067
	Apt Elev	1067

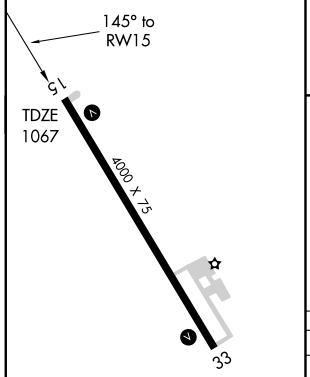
Baro-VNAV not authorized below -17°C (1°F).
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

NA

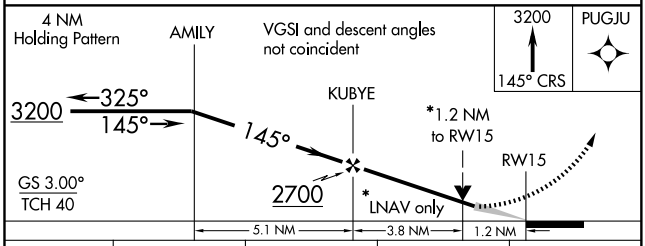
MISSED APPROACH: Climb to 3200 via 145° course to PUGJU WP and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
260	127.75 257.7	121.725	122.9 L





MIRL Rwy 15-33 L
REIL Rwys 15 and 33 L



CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	1460-1½ 393 (400-1½)		NA	
LNAV MDA	1480-1 413 (500-1)		NA	
CIRCLING	1500-1½ 433 (500-1½)	1520-1½ 453 (500-1½)	NA	

NC-1. 03 JUN 2010 to 01 JUL 2010

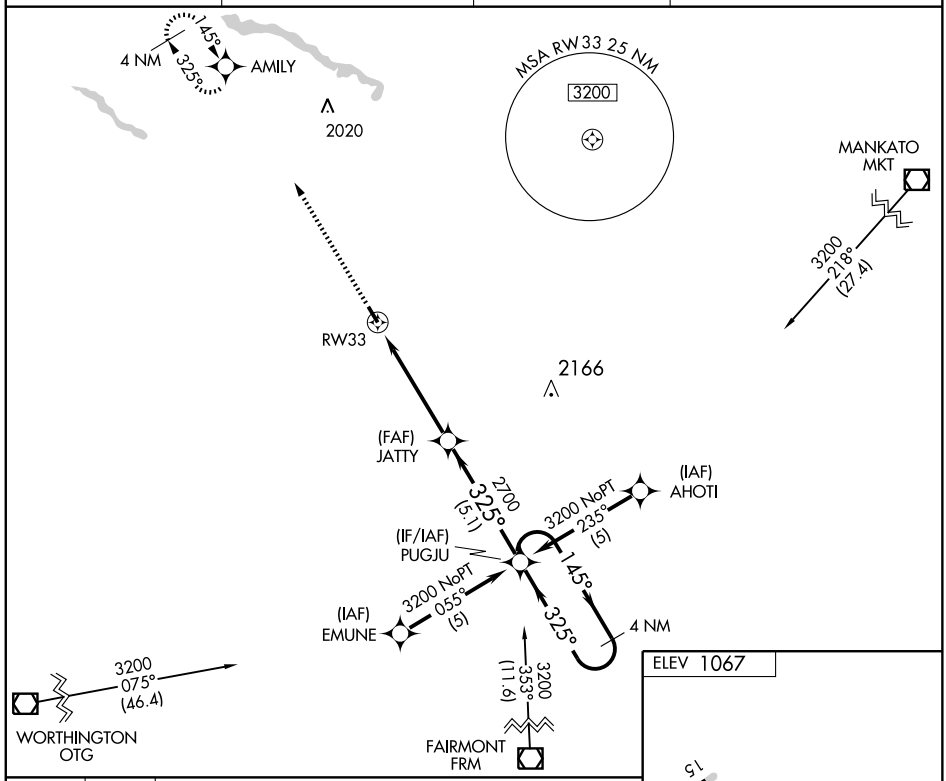
APP CRS	Rwy Idg	4000
325°	TDZE	1066
	Apt Elev	1067

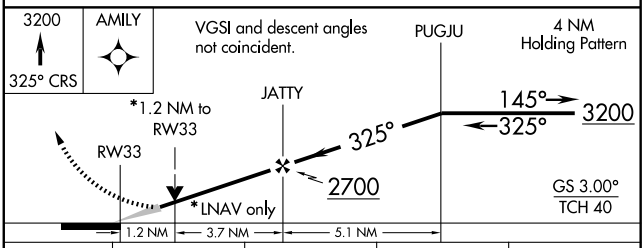
RNAV (GPS) RWY 33
ST. JAMES MUNI (JYG)

Baro-VNAV not authorized below -17°C (1°F).
NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

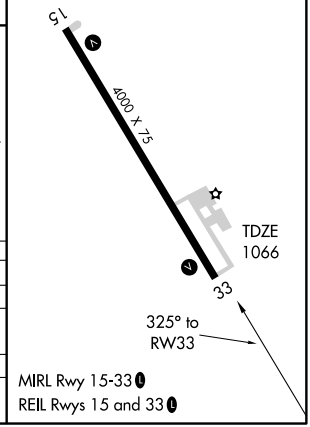
MISSED APPROACH: Climb to 3200 via 325° course to AMILY WP and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
260	127.75 257.7	121.725	122.9 L





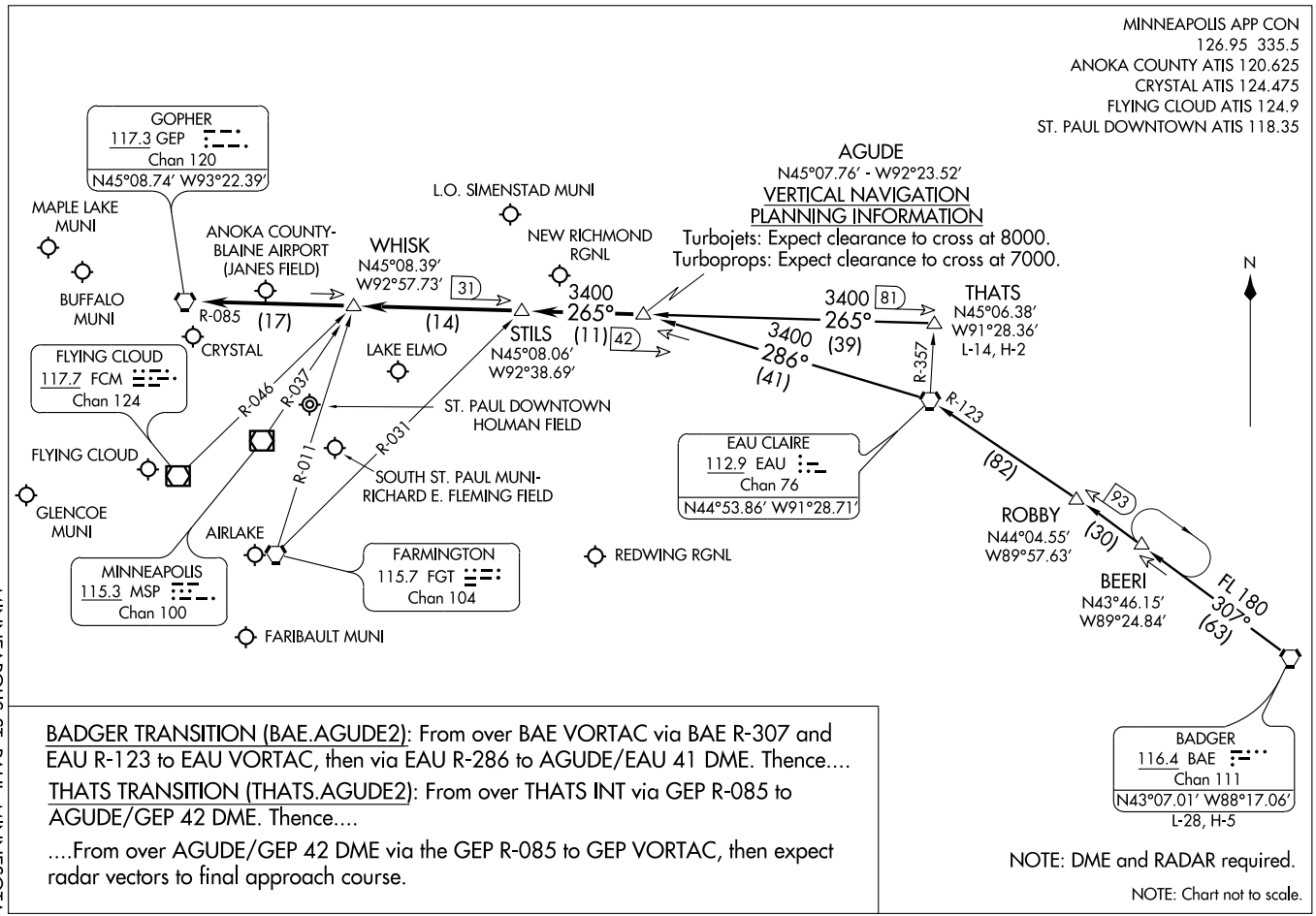
CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	1440-1¼ 374 (400-1¼)		NA	
LNAV MDA	1460-1 394 (400-1)		NA	
CIRCLING	1500-1¼ 433 (500-1¼)	1520-1¼ 453 (500-1¼)	NA	



NC-1. 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

NDB PPI	APP CRS	Rwy Idg	2497
400	023°	TDZE	932
		Apt Elev	932

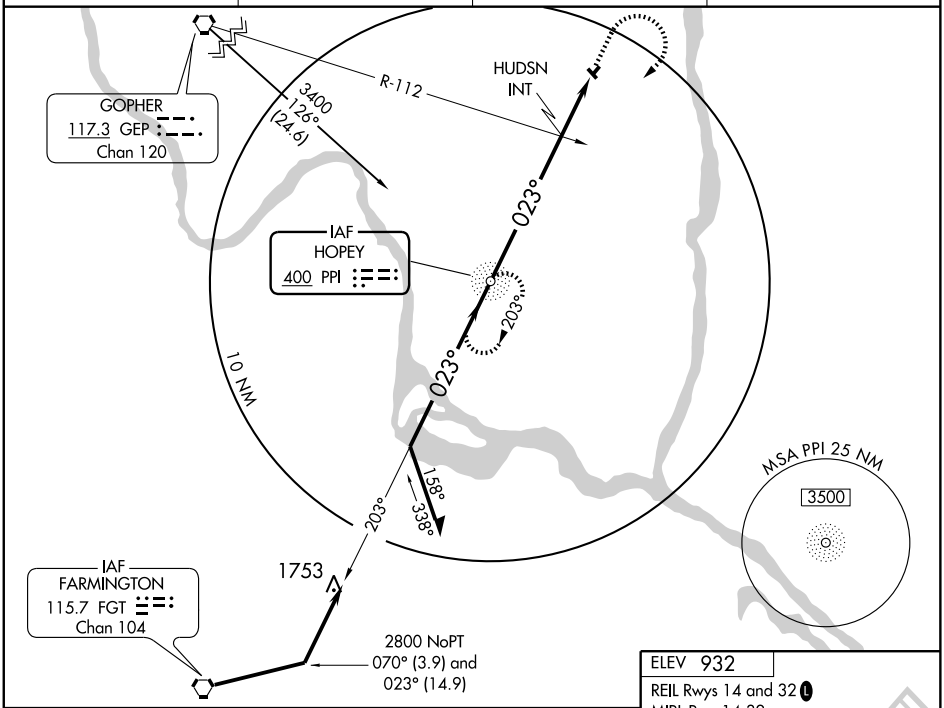
NDB RWY 4

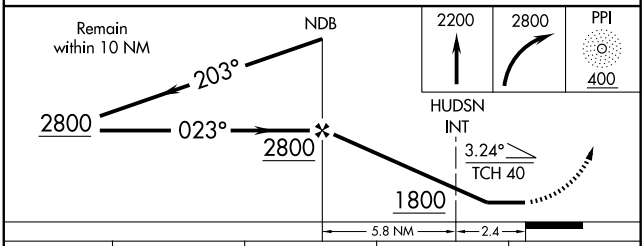
ST. PAUL/LAKE ELMO (21D)

T ANA When local altimeter setting not received, use St. Paul Downtown Holman Field altimeter setting. Straight-in minimums NA at night.

MISSED APPROACH: Climb to 2200 then climbing right turn to 2800 direct PPI NDB and hold.

AWOS-3	MINNEAPOLIS APP CON	CLNC DEL	UNICOM
120.075	121.2	118.625	122.8 (CTAF) L



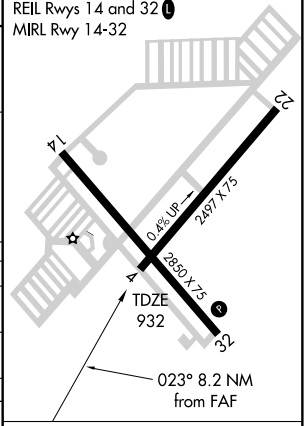


CATEGORY	A	B	C	D
S-4	1800-1 868 (900-1)	1800-1¼ 868 (900-1¼)	1800-2½ 868 (900-2½)	NA
CIRCLING	1800-1 868 (900-1)	1800-1¼ 868 (900-1¼)	1800-2½ 868 (900-2½)	NA
HUDSN FIX MINIMUMS				
S-4	1520-1 588 (600-1)		1520-1½ 588 (600-1½)	NA
CIRCLING	1520-1 588 (600-1)	1540-1 608 (700-1)	1540-1¾ 608 (700-1¾)	NA

ELEV 932

REIL Rwys 14 and 32 L

MIRL Rwy 14-32



FAF to MAP 8.2 NM

Knots	60	90	120	150	180
Min:Sec	8:12	5:28	4:06	3:17	2:44

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	2850
314°	TDZE	926
	Apt Elev	932

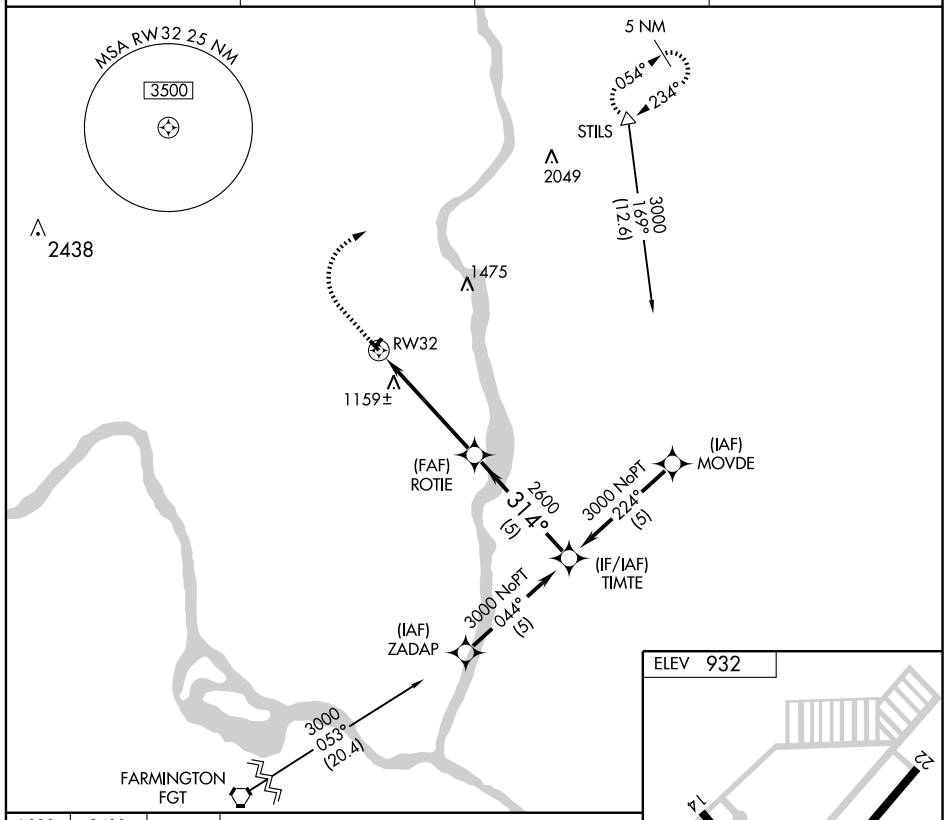
RNAV (GPS) RWY 32

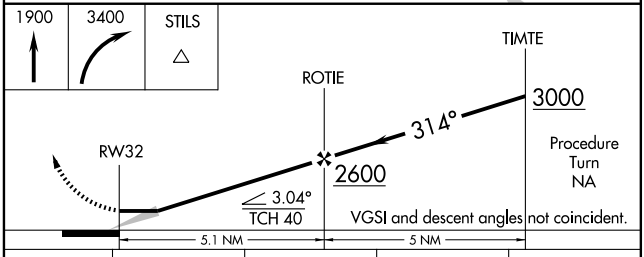
ST. PAUL/LAKE ELMO (21D)

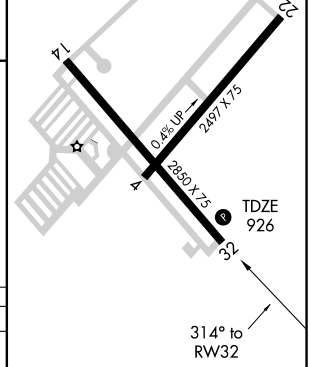
T NA DME/DME RNP- 0.3 NA. When local altimeter setting not received, use St. Paul Downtown Holman Field altimeter setting.

MISSED APPROACH: Climb to 1900 then climbing right turn to 3400 direct STILS WP and hold.

AWOS-3	MINNEAPOLIS APP CON	CLNC DEL	UNICOM
120.075	121.2	118.625	122.8 (CTAF) L







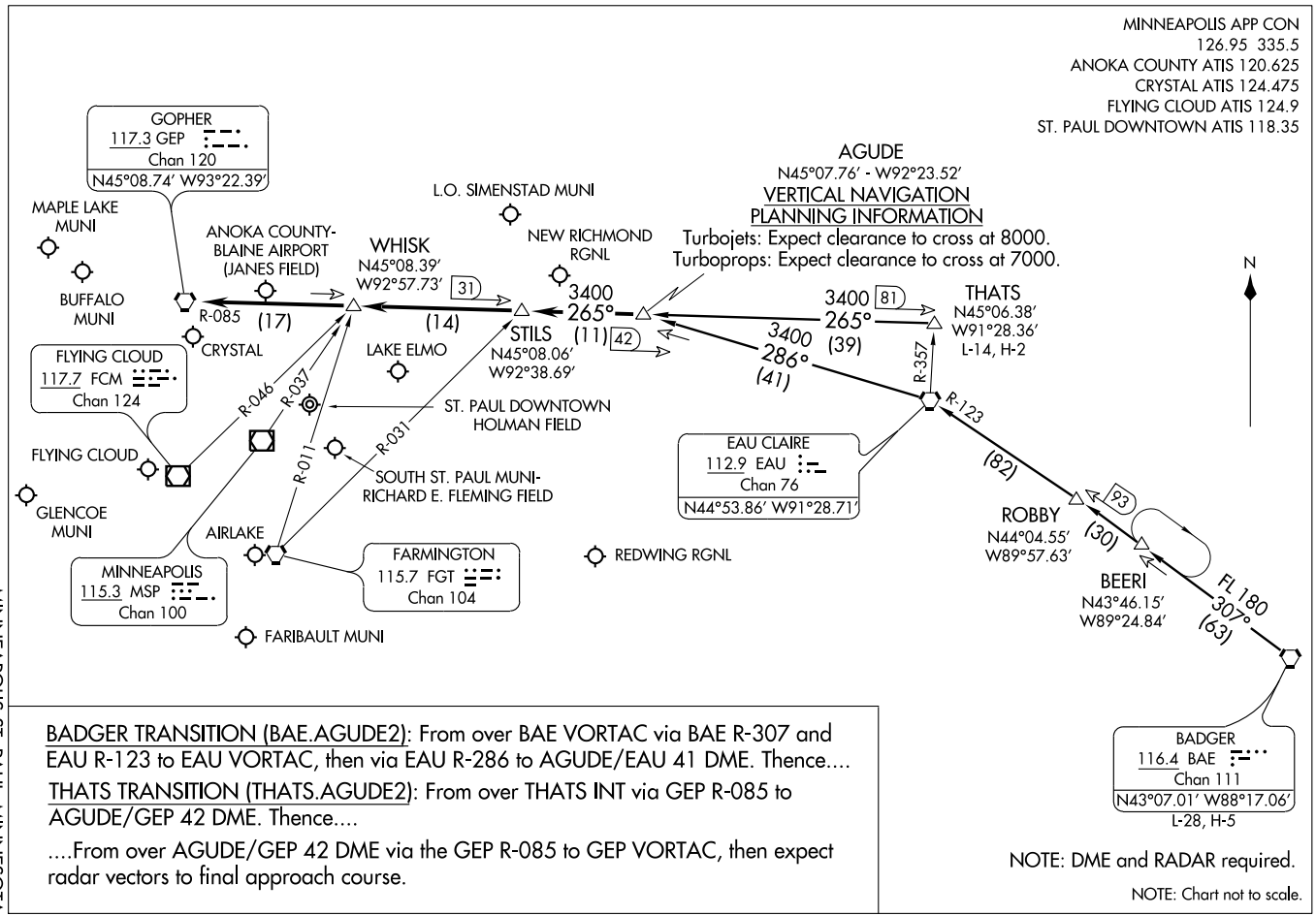
CATEGORY	A	B	C	D
LNAV MDA	1480-1 554 (600-1)		1480-1½ 554 (600-1½)	NA
CIRCLING	1500-1 568 (600-1)	1540-1 608 (700-1)	1540-1¾ 608 (700-1¾)	NA

REIL Rwys 14 and 32 L
MIRL Rwy 14-32

NC-1. 03 JUN 2010 to 01 JUL 2010

AGUDE TWO ARRIVAL

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



BADGER TRANSITION (BAE.AGUDE2): From over BAE VORTAC via BAE R-307 and EAU R-123 to EAU VORTAC, then via EAU R-286 to AGUDE/EAU 41 DME. Thence....

THATS TRANSITION (THATS.AGUDE2): From over THATS INT via GEP R-085 to AGUDE/GEP 42 DME. Thence....

....From over AGUDE/GEP 42 DME via the GEP R-085 to GEP VORTAC, then expect radar vectors to final approach course.

NOTE: DME and RADAR required.

NOTE: Chart not to scale.

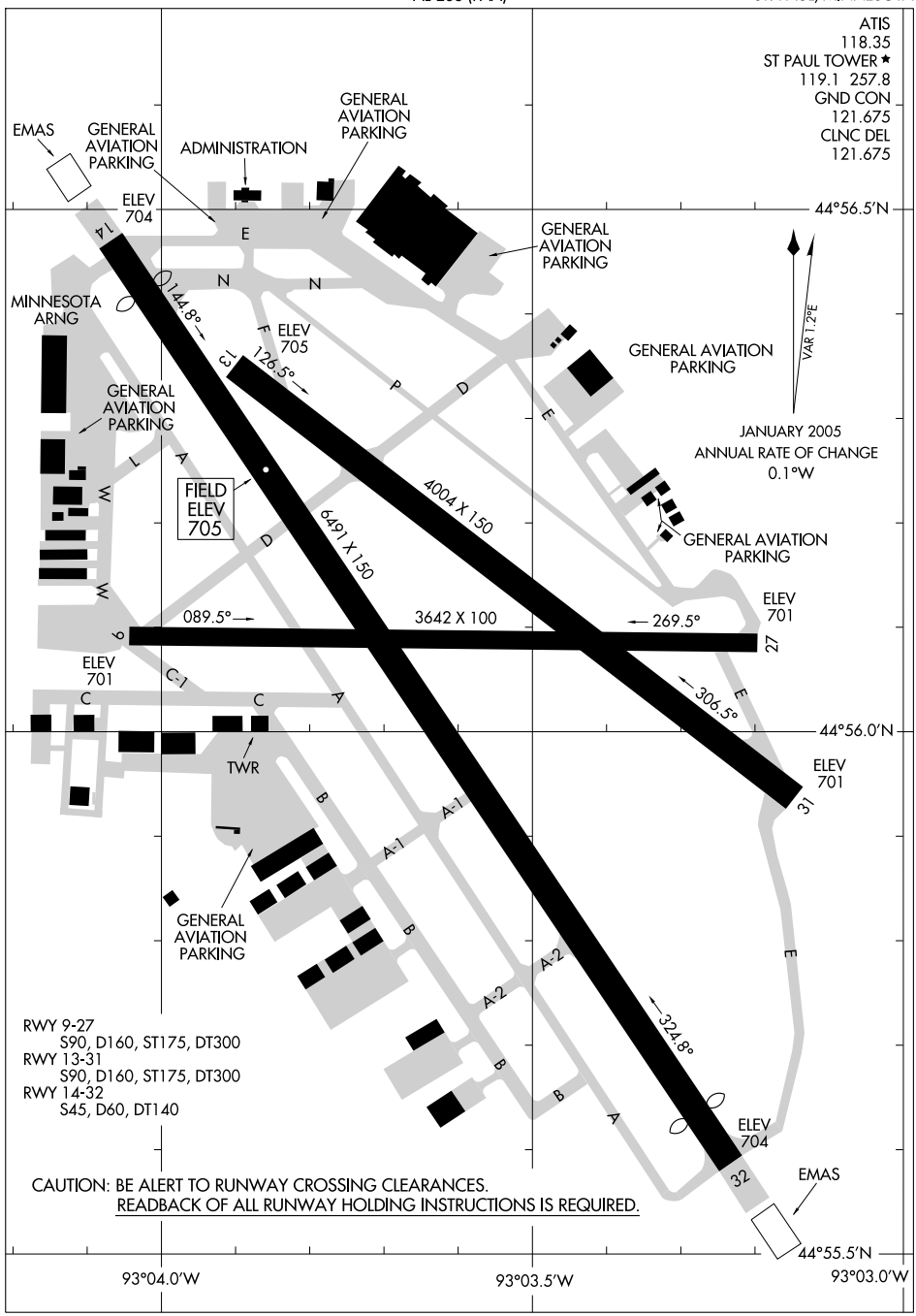
10042

AIRPORT DIAGRAM

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

AL-263 (FAA)

ST. PAUL, MINNESOTA



RWY 9-27
S90, D160, ST175, DT300
RWY 13-31
S90, D160, ST175, DT300
RWY 14-32
S45, D60, DT140

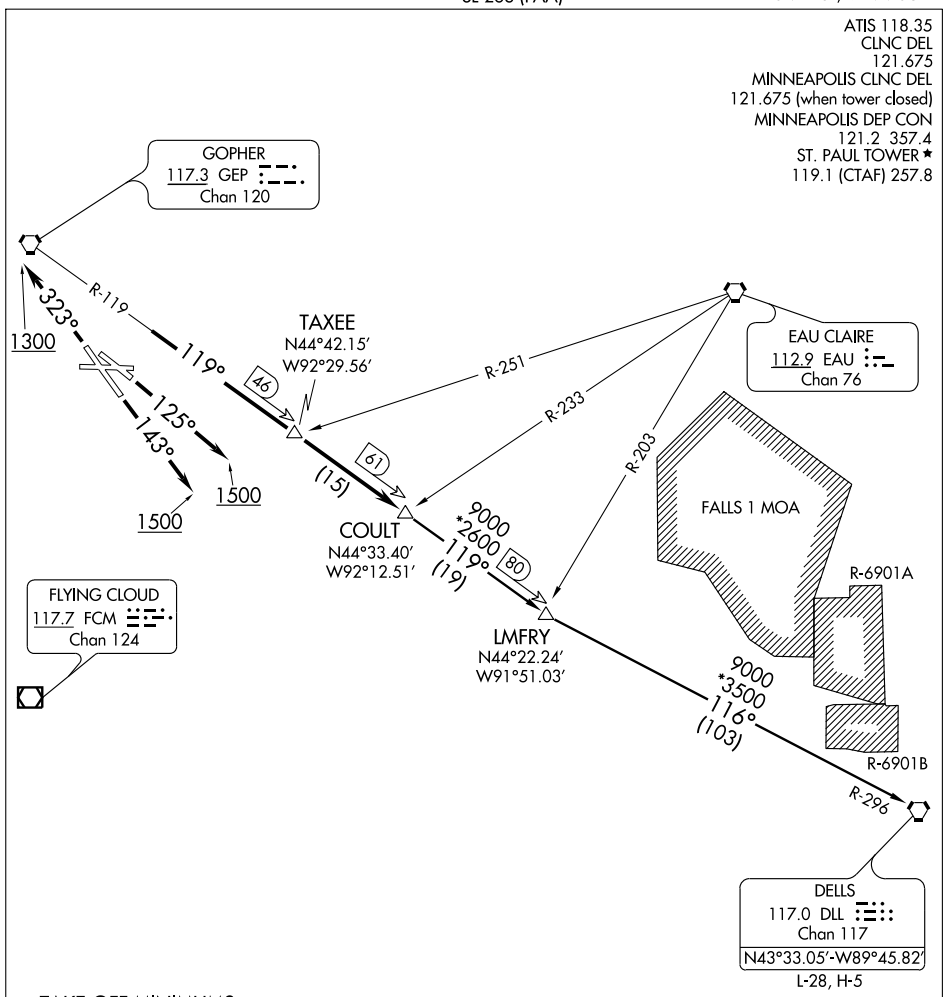
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

NC-1, 03 JUN 2010 to 01 JUL 2010

(COULT3.COULT) 10098

COULT THREE DEPARTURE

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)
SL-263 (FAA)
ST. PAUL, MINNESOTA



TAKE-OFF MINIMUMS:

Rwy 9: Standard with minimum climb of 346' per NM to 1500.
Rwy 13: Standard with minimum climb of 266' per NM to 1500.
Rwy 14: Standard with minimum climb of 216' per NM to 1500.
Rwy 27: Standard with minimum climb of 436' per NM to 1500.
Rwy 31: NA-obstacles.
Rwy 32: Standard with minimum climb of 340' per NM to 3000.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: RADAR required.
NOTE: Chart not to scale.

NC-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF RUNWAYS 9, 27: Fly assigned heading and altitude for radar vectors to intercept GEP R-119 to COULT INT/GEP 61 DME, thence
TAKE-OFF RUNWAY 13: Climb heading 125° to 1500 for radar vectors to intercept GEP R-119 to COULT INT/GEP 61 DME, thence
TAKE-OFF RUNWAY 14: Climb heading 143° to 1500 for radar vectors to intercept GEP R-119 to COULT INT/GEP 61 DME, thence
TAKE-OFF RUNWAY 32: Climb heading 323° to 1300 for radar vectors to intercept GEP R-119 to COULT INT/GEP 61 DME, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

DELLS TRANSITION (COULT3.DLL): From over COULT INT via GEP R-119 to LMFRY, then via DLL R-296 to DLL VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 9: Multiple trees beginning 1265′ from DER, 167′ right of centerline, up to 75′ AGL/1055′ MSL.
Multiple trees beginning 1.1 NM from DER, 124′ left of centerline, up to 100′ AGL/1099′ MSL.
OL tank 1571′ from DER, 771′ right of centerline, 50′ AGL/811′ MSL.
Mobile crane 1163′ from DER, 123′ left of centerline, 50′ AGL/758′ MSL.

RWY 13: OL stack 2695′ from DER, 842′ right of centerline, 50′ AGL/820′ MSL.
Tree 1563′ from DER, 25′ right of centerline, 61′ AGL/748′ MSL.
Multiple trees beginning 1004′ from DER, 607′ left of centerline, 50′ AGL/767′ MSL.
Tower 1725′ from DER, 930′ left of centerline, 47′ AGL/753′ MSL
Vent on building 3029′ from DER, 629′ right of centerline, 10′ AGL/783′ MSL.
Multiple bushes beginning 194′ from DER, 88′ left of centerline, 7′ AGL/712′ MSL.
Stack 1879′ from DER, 25′ left of centerline, 51′ AGL/751′ MSL

RWY 14: Multiple trees beginning 805′ from DER, 2′ right of centerline, up to 112′ AGL/811′ MSL.
Multiple trees beginning 1205′ from DER, 64′ left of centerline, up to 80′ AGL/770′ MSL.
Poles 2810′ from DER, 715′ right of centerline, 91′ AGL/778′ MSL.

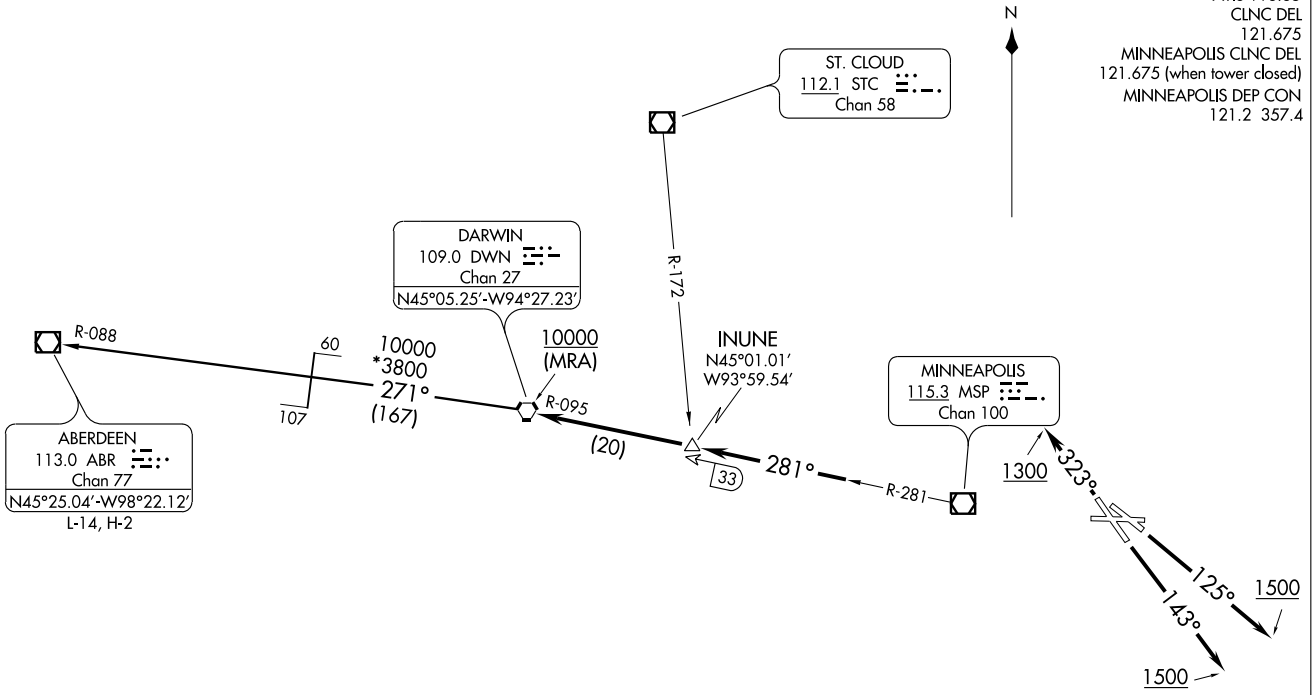
RWY 27: Multiple trees beginning 803′ from DER, 122′ left of centerline, up to 100′ AGL/994′ MSL.
Tree 783′ from DER, 105′ right of centerline, 25′ AGL/725′ MSL.
OL antenna 996′ from DER, 304′ right of centerline, 67′ AGL/767′ MSL.
Light pole 1328′ from DER, 222′ left of centerline, 50′ AGL/747′ MSL.
Building 2049′ from DER, 837′ right of centerline, 57′ AGL/761′ MSL.
Flagpole 2333′ from DER, 199′ left of centerline, 78′ AGL/778′ MSL.
Stack 1.8 NM from DER, 635′ left of centerline, 569′ AGL/1279′ MSL.

RWY 32: Road and vehicle 211′ from DER, 482′ left of centerline, 17′ AGL/717′ MSL.
Railroad beginning 369′ from DER, 329′ left of centerline, up to 23′ AGL/727′ MSL.
Pipe on DME 383′ from DER, 269′ right of centerline, 17′ AGL/722′ MSL.
Tree 1152′ from DER, 209′ left of centerline, 44′ AGL/744′ MSL.
Tree 1685′ from DER, 277′ right of centerline, 75′ AGL/770′ MSL.
Sign 5668′ from DER, 1924′ left of centerline, 86′ AGL/874′ MSL.
Trees 5614′ from DER, 1796′ right of centerline, 100′ AGL/939′ MSL.
Building 5779′ from DER, 1733′ right of centerline, 72′ AGL/910′ MSL.
Pole 1 NM from DER, 1835′ right of centerline, 157′ AGL/973′ MSL.
Building 1.1 NM from DER, 2170′ left of centerline, 122′ AGL/886′ MSL.
Multiple buildings beginning 1.1 NM from DER, 378′ left of centerline, up to 142′ AGL/918′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

DARWIN THREE DEPARTURE (DWN3.DWN) 10042

ST.PAUL DOWNTOWN HOLMAN FIELD (STP)
ST. PAUL, MINNESOTA
SL-263 (FAA)



TAKE-OFF MINIMUMS

Rwy 9: Standard with minimum climb of 346′ per NM to 1500.
Rwy 13: Standard with minimum climb of 266′ per NM to 1500.
Rwy 14: Standard with minimum climb of 216′ per NM to 1500.
Rwy 27: Standard with minimum climb of 436′ per NM to 1500.
Rwy 32: Standard with minimum climb of 340′ per NM to 3000.
Rwy 31: NA-obstacles.

NOTE: RADAR required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF RUNWAYS 9, 27: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-281 and DWN R-095 to DWN VORTAC, thence

TAKE-OFF RUNWAY 13: Climb heading 125° to 1500 for radar vectors to MSP VOR/DME then via MSP R-281 and DWN R-095 to DWN VORTAC, thence

TAKE-OFF RUNWAY 14: Climb heading 143° to 1500 for radar vectors to MSP VOR/DME then via MSP R-281 and DWN R-095 to DWN VORTAC, thence

TAKE-OFF RUNWAY 32: Climb heading 323° to 1300 for radar vectors to MSP VOR/DME then via MSP R-281 and DWN R-095 to DWN VORTAC, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

ABERDEEN TRANSITION (DWN3.ABR): From over DWN VORTAC via DWN R-271 and ABR R-088 to ABR VOR/DME.

TAKE-OFF OBSTACLE NOTES

RWY 9: Multiple trees beginning 1265′ from DER, 167′ right of centerline, up to 75′ AGL/1055′ MSL.
Multiple trees beginning 1.1 NM from DER, 124′ left of centerline, up to 100′ AGL/1099′ MSL.
OL tank 1571′ from DER, 771′ right of centerline, 50′ AGL/811′ MSL.
Mobile crane 1163′ from DER, 123′ left of centerline, 50′ AGL/758′ MSL.

RWY 13: OL stack 2695′ from DER, 842′ right of centerline, 50′ AGL/820′ MSL.
Tree 1563′ from DER, 25′ right of centerline, 61′ AGL/748′ MSL.
Multiple trees beginning 1004′ from DER, 607′ left of centerline, 50′ AGL/767′ MSL.
Tower 1725′ from DER, 930′ left of centerline, 47′ AGL/753′ MSL
Vent on building 3029′ from DER, 629′ right of centerline, 10′ AGL/783′ MSL.
Multiple bushes beginning 194′ from DER, 88′ left of centerline, 7′ AGL/712′ MSL.
Stack 1879′ from DER, 25′ left of centerline, 51′ AGL/751′ MSL

RWY 14: Multiple trees beginning 805′ from DER, 2′ right of centerline, up to 112′ AGL/811′ MSL.
Multiple trees beginning 1205′ from DER, 64′ left of centerline, up to 80′ AGL/770′ MSL.
Poles 2810′ from DER, 715′ right of centerline, 91′ AGL/778′ MSL.

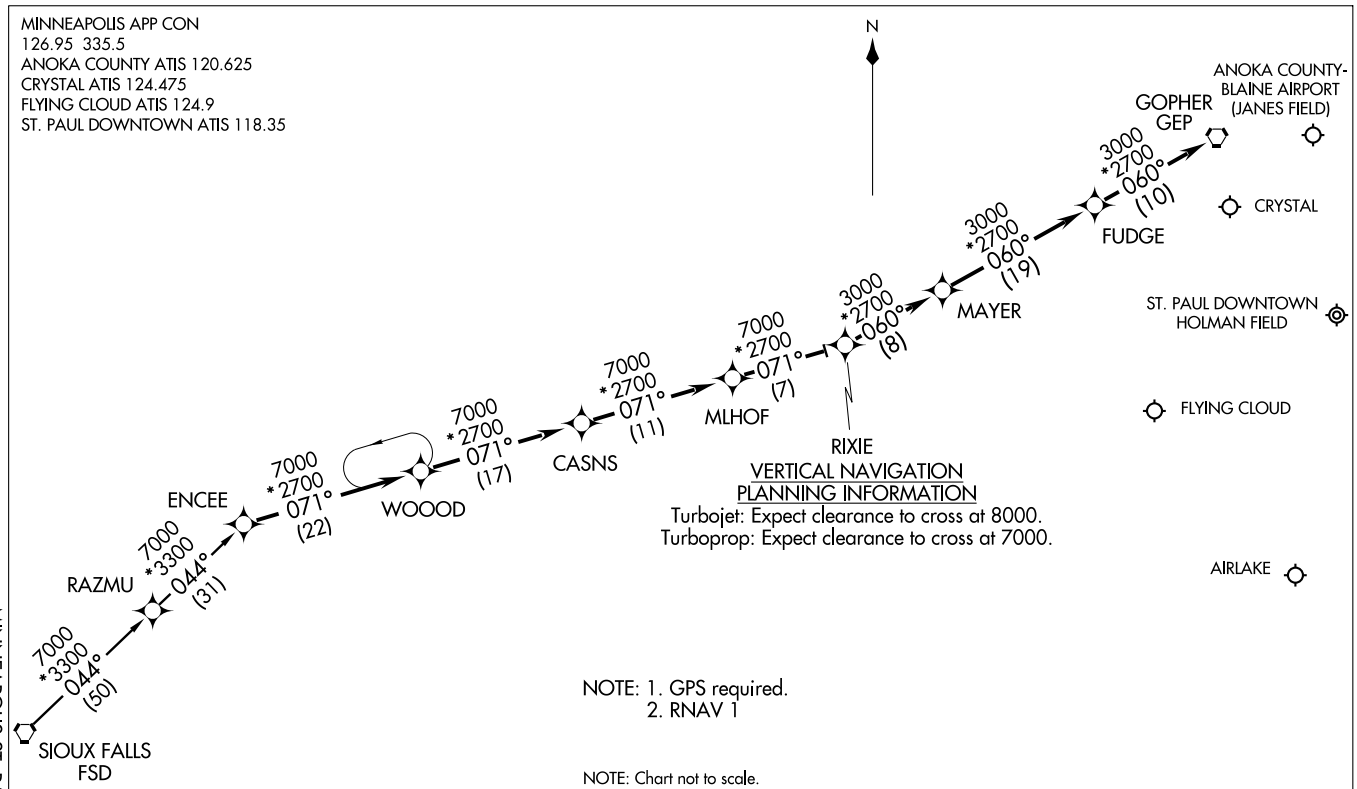
RWY 27: Multiple trees beginning 803′ from DER, 122′ left of centerline, up to 100′ AGL/994′ MSL.
Tree 783′ from DER, 105′ right of centerline, 25′ AGL/725′ MSL.
OL antenna 996′ from DER, 304′ right of centerline, 67′ AGL/767′ MSL.
Light pole 1328′ from DER, 222′ left of centerline, 50′ AGL/747′ MSL.
Building 2049′ from DER, 837′ right of centerline, 57′ AGL/761′ MSL.
Flagpole 2333′ from DER, 199′ left of centerline, 78′ AGL/778′ MSL.
Stack 1.8 NM from DER, 635′ left of centerline, 569′ AGL/1279′ MSL.

RWY 32: Road and vehicle 211′ from DER, 482′ left of centerline, 17′ AGL/717′ MSL.
Railroad beginning 369′ from DER, 329′ left of centerline, up to 23′ AGL/727′ MSL.
Pipe on DME 383′ from DER, 269′ right of centerline, 17′ AGL/722′ MSL.
Tree 1152′ from DER, 209′ left of centerline, 44′ AGL/744′ MSL.
Tree 1685′ from DER, 277′ right of centerline, 75′ AGL/770′ MSL.
Sign 5668′ from DER, 1924′ left of centerline, 86′ AGL/874′ MSL.
Trees 5614′ from DER, 1796′ right of centerline, 100′ AGL/939′ MSL.
Building 5779′ from DER, 1733′ right of centerline, 72′ AGL/910′ MSL.
Pole 1 NM from DER, 1835′ right of centerline, 157′ AGL/973′ MSL.
Building 1.1 NM from DER, 2170′ left of centerline, 122′ AGL/886′ MSL.
Multiple buildings beginning 1.1 NM from DER, 378′ left of centerline, up to 142′ AGL/918′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

ENCEE ONE ARRIVAL (RNAV)

MINNEAPOLIS APP CON
126.95 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS 118.35



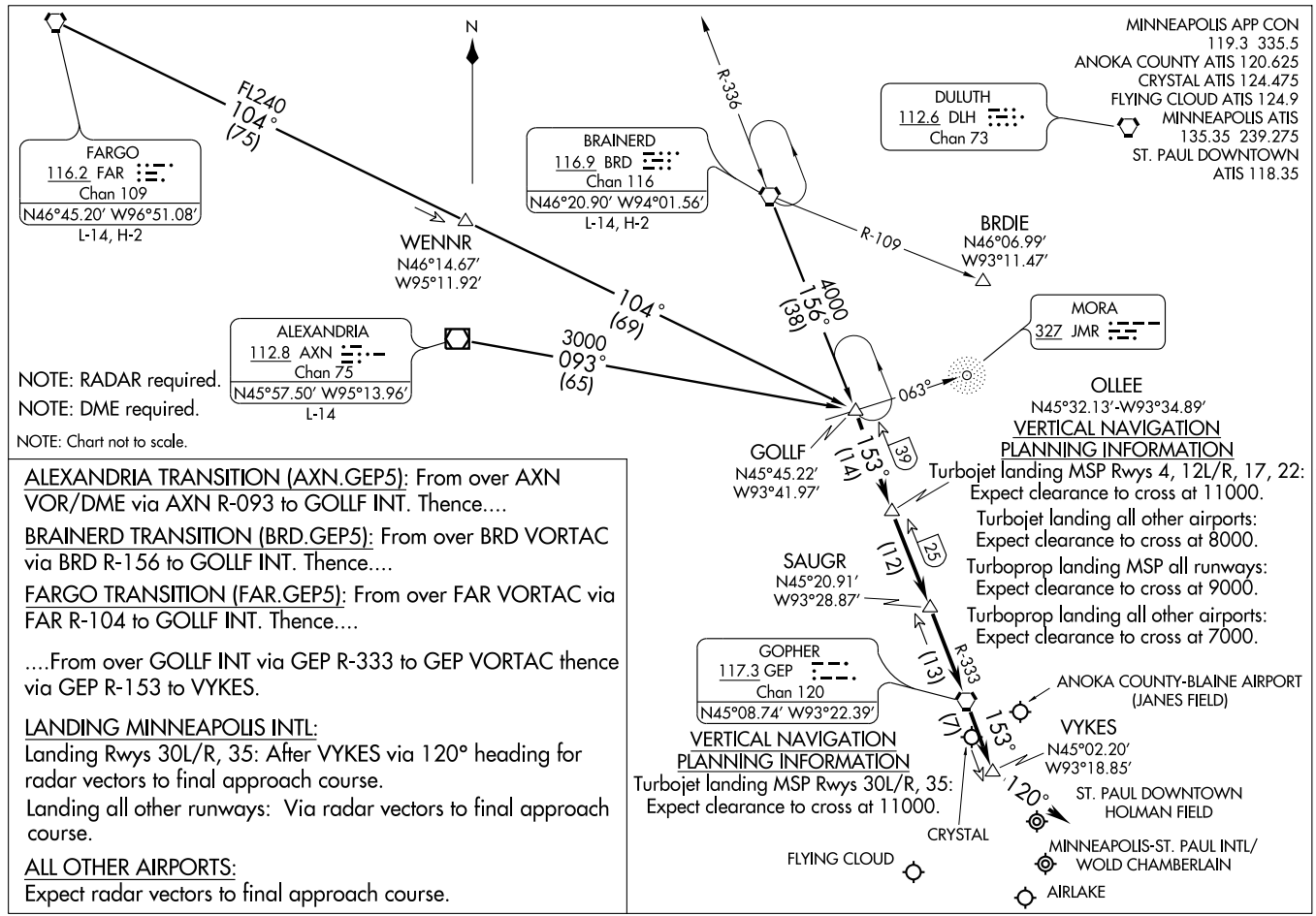
VERTICAL NAVIGATION PLANNING INFORMATION
Turbojet: Expect clearance to cross at 8000.
Turboprop: Expect clearance to cross at 7000.

NOTE: 1. GPS required.
2. RNAV 1

NOTE: Chart not to scale.

SIOUX FALLS TRANSITION (FSD.ENCEE1)

From over ENCEE WP via 071° track to RIXIE WP, thence via 060° track to GEP VORTAC, thence expect radar vectors to final approach course.


GOPHER FIVE ARRIVAL (GEP.GEP5) 08157
ST-264 (FAA)
MINNEAPOLIS, MINNESOTA
MINNEAPOLIS APP CON
119.3 335.5
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
MINNEAPOLIS ATIS
135.35 239.275
ST. PAUL DOWNTOWN
ATIS 118.35
N
FARGO
116.2 FAR
Chan 109
N46°45.20' W96°51.08'
L-14, H-2
FL240
104°
(75)
WENNR
N46°14.67'
W95°11.92'
BRAINERD
116.9 BRD
Chan 116
N46°20.90' W94°01.56'
L-14, H-2
R-336
DULUTH
112.6 DLH
Chan 73
R-109
BRDIE
N46°06.99'
W93°11.47'
4000
156°
(38)
MORA
327 JMR
ALEXANDRIA
112.8 AXN
Chan 75
N45°57.50' W95°13.96'
L-14
3000
093°
(65)
104°
(69)
063°
OLLEE
N45°32.13'-W93°34.89'
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 4, 12L/R, 17, 22:
Expect clearance to cross at 11000.
Turbojet landing all other airports:
Expect clearance to cross at 8000.
Turboprop landing MSP all runways:
Expect clearance to cross at 9000.
Turboprop landing all other airports:
Expect clearance to cross at 7000.
GOLLF
N45°45.22'
W93°41.97'
153°
(14)
39
SAUGR
N45°20.91'
W93°28.87'
(12)
25
R-333
(13)
GOPHER
117.3 GEP
Chan 120
N45°08.74' W93°22.39'
(7)
153°
VERTICAL NAVIGATION
PLANNING INFORMATION
Turbojet landing MSP Rwys 30L/R, 35:
Expect clearance to cross at 11000.
ANOKA COUNTY-BLAINE AIRPORT
(JANES FIELD)
VYKES
N45°02.20'
W93°18.85'
120°
ST. PAUL DOWNTOWN
HOLMAN FIELD
CRYSTAL
MINNEAPOLIS-ST. PAUL INTL/
WOLD CHAMBERLAIN
FLYING CLOUD
AIRLAKE
NOTE: RADAR required.
NOTE: DME required.
NOTE: Chart not to scale.
ALEXANDRIA TRANSITION (AXN.GEP5): From over AXN VOR/DME via AXN R-093 to GOLLF INT. Thence....
BRAINERD TRANSITION (BRD.GEP5): From over BRD VORTAC via BRD R-156 to GOLLF INT. Thence....
FARGO TRANSITION (FAR.GEP5): From over FAR VORTAC via FAR R-104 to GOLLF INT. Thence....
....From over GOLLF INT via GEP R-333 to GEP VORTAC thence via GEP R-153 to VYKES.
LANDING MINNEAPOLIS INTL:
Landing Rwys 30L/R, 35: After VYKES via 120° heading for radar vectors to final approach course.
Landing all other runways: Via radar vectors to final approach course.
ALL OTHER AIRPORTS:
Expect radar vectors to final approach course.

LOC/DME I-VKG	APP CRS	Rwy Idg	6148
111.5	143°	TDZE	705
Chan 52		Apt Elev	705

ILS or LOC RWY 14

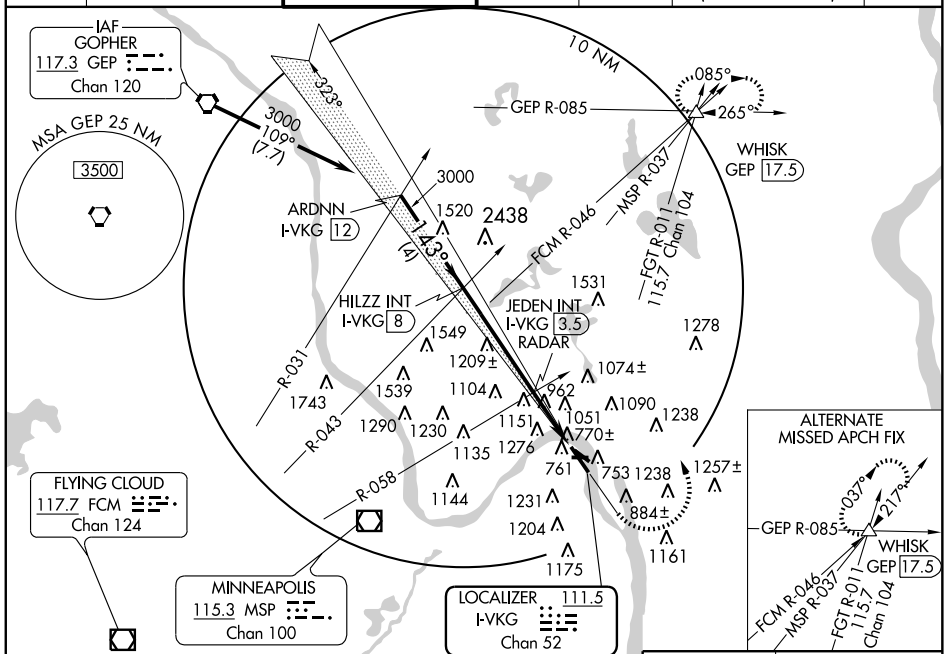
ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

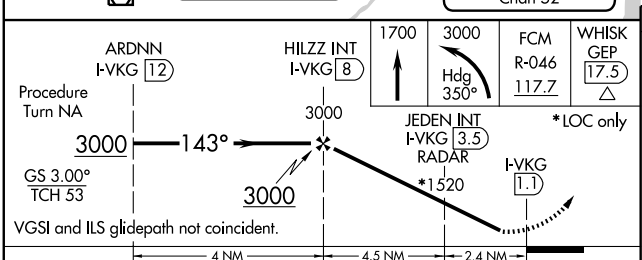
Visibility reduction by helicopters NA. When local altimeter setting not received, use South St. Paul altimeter setting. Inoperative table does not apply to S-ILS 14. For inoperative MALSR increase S-LOC-14 Cat A and B visibility to RVR 5000. JEDEN Fix Minimums: increase S-LOC-14 Cat A and B visibility to RVR 5000.

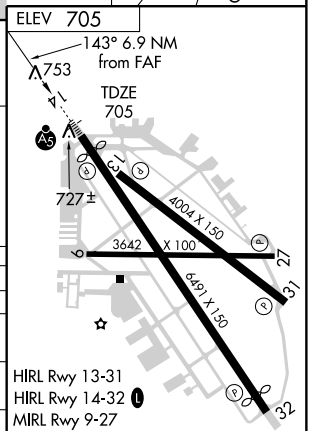
MALSR

MISSED APPROACH: Climb to 1700 then climbing left turn to 3000 via heading 350° and via FCM VOR/DME R-046 to WHISK INT/GEP 17.5 DME and hold.

ATIS	MINNEAPOLIS APP CON	ST. PAUL TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
118.35	121.2 357.4	119.1(CTAF) L 257.8	121.675	121.675	121.675 (when tower closed)	122.95







CATEGORY	A	B	C	D
S-ILS 14	955/40	250 (300-¾)		
S-LOC 14	1520/40	815 (900-¾)	1520-2 815 (900-2)	1520-2¼ 815 (900-2¼)
CIRCLING	1580-1 875 (900-1)	1580-1¼ 875 (900-1¼)	1580-2½ 875 (900-2½)	1580-2¾ 875 (900-2¾)
JEDEN FIX MINIMUMS				
S-LOC 14	1360/40	655 (700-¾)	1360/60 655 (700-1¼)	1360-1½ 655 (700-1½)
CIRCLING	1580-1 875 (900-1)	1580-1¼ 875 (900-1¼)	1580-2½ 875 (900-2½)	1580-2¾ 875 (900-2¾)

HIRL Rwy 13-31
HIRL Rwy 14-32 L
MIRL Rwy 9-27
REIL Rwys 31 and 32

FAF to MAP 6.9 NM

Knots	60	90	120	150	180
Min:Sec	6:54	4:36	3:27	2:46	2:18

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-BAO	APP CRS	Rwy Idg	6109
111.5	323°	TDZE	704
Chan 52		Apt Elev	705

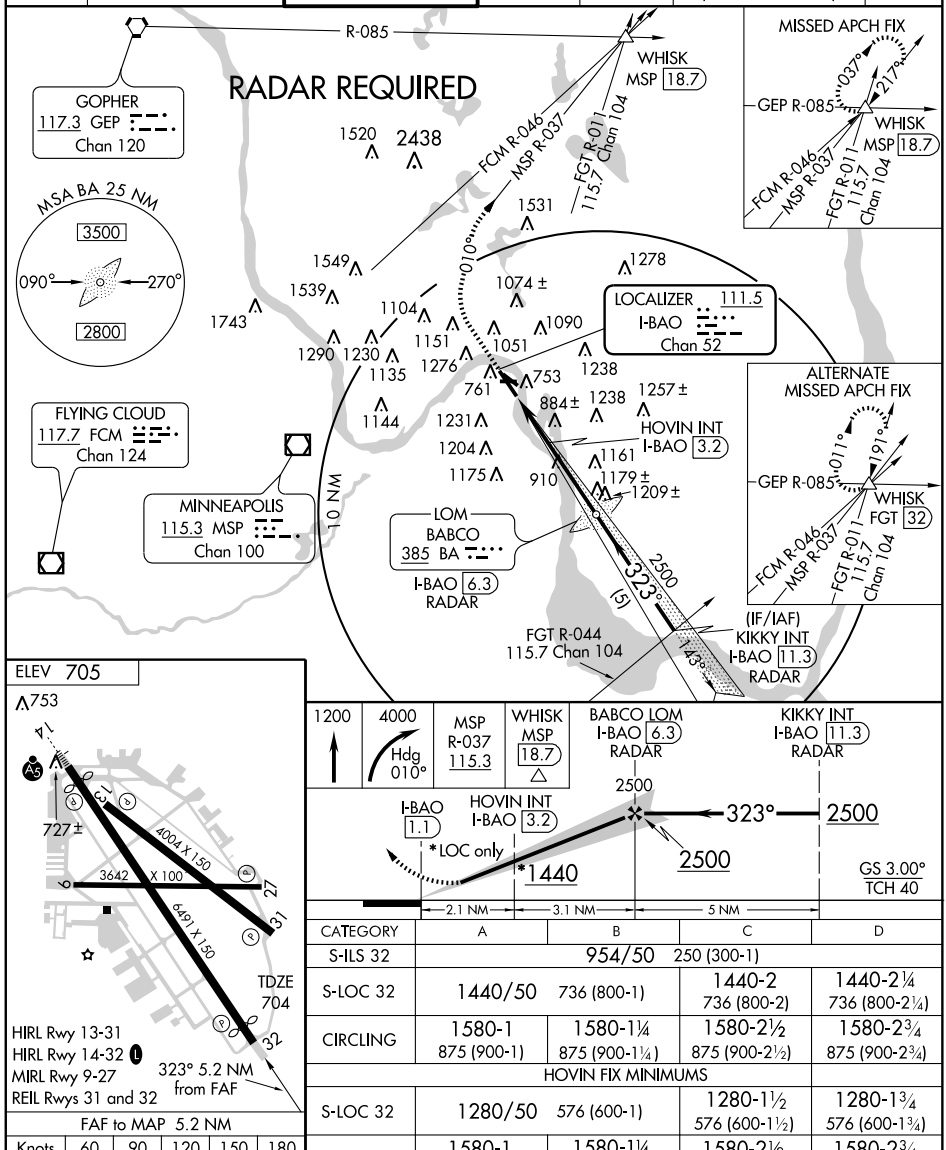
ILS or LOC RWY 32

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

Visibility reduction by helicopters NA. When local altimeter setting not received, use South St. Paul Muni altimeter setting. Radar or DME required.

MISSED APPROACH: Climb to 1200 then climbing right turn to 4000 via heading 010° and MSP R-037 to WHISK INT/MSP 18.7 DME and hold.

ATIS	MINNEAPOLIS APP CON	ST. PAUL TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
118.35	121.2 357.4	119.1(CTAF) L 257.8	121.675	121.675	121.675 (when tower closed)	122.95

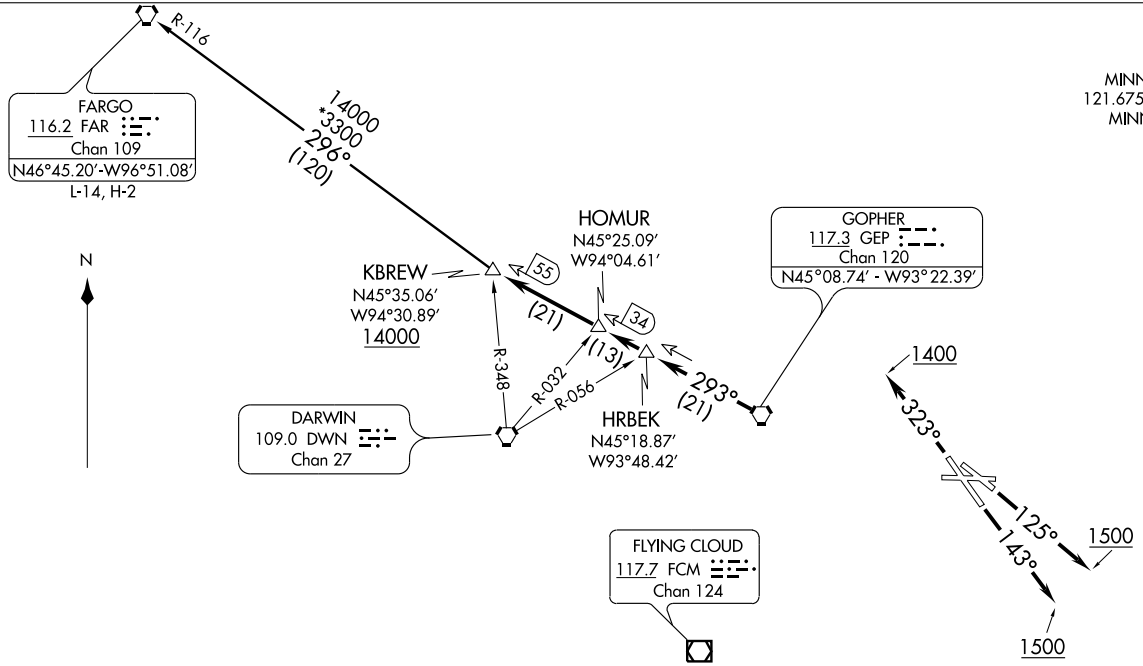


CATEGORY	A	B	C	D
S-ILS 32	954/50	250 (300-1)		
S-LOC 32	1440/50	736 (800-1)	1440-2 736 (800-2)	1440-2¼ 736 (800-2¼)
CIRCLING	1580-1 875 (900-1)	1580-1¼ 875 (900-1¼)	1580-2½ 875 (900-2½)	1580-2¾ 875 (900-2¾)
HOVIN FIX MINIMUMS				
S-LOC 32	1280/50	576 (600-1)	1280-1½ 576 (600-1½)	1280-1¾ 576 (600-1¾)
CIRCLING	1580-1 875 (900-1)	1580-1¼ 875 (900-1¼)	1580-2½ 875 (900-2½)	1580-2¾ 875 (900-2¾)

FAF to MAP 5.2 NM

Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

NC-1. 03 JUN 2010 to 01 JUL 2010



ATIS 118.35
CLNC DEL
121.675
MINNEAPOLIS CLNC DEL
121.675 (when tower closed)
MINNEAPOLIS DEP CON
121.2 357.4

TAKE-OFF MINIMUMS:
Rwy 9: Standard with minimum climb of 346′ per NM to 1500.
Rwy 13: Standard with minimum climb of 266′ per NM to 1500.
Rwy 14: Standard with minimum climb of 216′ per NM to 1500.
Rwy 27: Standard with minimum climb of 436′ per NM to 1500.
Rwy 31: NA - obstacles.
Rwy 32: Standard with minimum climb of 340′ per NM to 3000.

NOTE: RADAR required.
NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

(KBREW3.KBREW) 10098
KBREW THREE DEPARTURE
ST.PAUL DOWNTOWN HOLMAN FIELD (STP)
SL-263 (FAA)
ST. PAUL, MINNESOTA

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF RUNWAYS 9, 27: Fly assigned heading and altitude for radar vectors to GEP VORTAC then via GEP R-293 to KBREW INT/ GEP 55 DME, thence

TAKE-OFF RUNWAY 13: Climb heading 125° to 1500 for radar vectors to GEP VORTAC then via GEP R-293 to KBREW INT/ GEP 55 DME, thence

TAKE-OFF RUNWAY 14: Climb heading 143° to 1500 for radar vectors to GEP VORTAC then via GEP R-293 to KBREW INT/ GEP 55 DME, thence

TAKE-OFF RUNWAY 32: Climb heading 323° to 1400 for radar vectors to GEP VORTAC then via GEP R-293 to KBREW INT/ GEP 55 DME, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

FARGO TRANSITION (KBREW3.FAR): From over KBREW INT via FAR R-116 to FAR VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 9: Multiple trees beginning 1265′ from DER, 167′ right of centerline, up to 75′ AGL/1055′ MSL.
Multiple trees beginning 1.1 NM from DER, 124′ left of centerline, up to 100′ AGL/1099′ MSL.
OL tank 1571′ from DER, 771′ right of centerline, 50′ AGL/811′ MSL.
Mobile crane 1163′ from DER, 123′ left of centerline, 50′ AGL/758′ MSL.

RWY 13: OL stack 2695′ from DER, 842′ right of centerline, 50′ AGL/820′ MSL.
Tree 1563′ from DER, 25′ right of centerline, 61′ AGL/748′ MSL.
Multiple trees beginning 1004′ from DER, 607′ left of centerline, 50′ AGL/767′ MSL.
Tower 1725′ from DER, 930′ left of centerline, 47′ AGL/753′ MSL
Vent on building 3029′ from DER, 629′ right of centerline, 10′ AGL/783′ MSL.
Multiple bushes beginning 194′ from DER, 88′ left of centerline, 7′ AGL/712′ MSL.
Stack 1879′ from DER, 25′ left of centerline, 51′ AGL/751′ MSL

RWY 14: Multiple trees beginning 805′ from DER, 2′ right of centerline, up to 112′ AGL/811′ MSL.
Multiple trees beginning 1205′ from DER, 64′ left of centerline, up to 80′ AGL/770′ MSL.
Poles 2810′ from DER, 715′ right of centerline, 91′ AGL/778′ MSL.

RWY 27: Multiple trees beginning 803′ from DER, 122′ left of centerline, up to 100′ AGL/994′ MSL.
Tree 783′ from DER, 105′ right of centerline, 25′ AGL/725′ MSL.
OL antenna 996′ from DER, 304′ right of centerline, 67′ AGL/767′ MSL.
Light pole 1328′ from DER, 222′ left of centerline, 50′ AGL/747′ MSL.
Building 2049′ from DER, 837′ right of centerline, 57′ AGL/761′ MSL.
Flagpole 2333′ from DER, 199′ left of centerline, 78′ AGL/778′ MSL.
Stack 1.8 NM from DER, 635′ left of centerline, 569′ AGL/1279′ MSL.

RWY 32: Road and vehicle 211′ from DER, 482′ left of centerline, 17′ AGL/717′ MSL.
Railroad beginning 369′ from DER, 329′ left of centerline, up to 23′ AGL/727′ MSL.
Pipe on DME 383′ from DER, 269′ right of centerline, 17′ AGL/722′ MSL.
Tree 1152′ from DER, 209′ left of centerline, 44′ AGL/744′ MSL.
Tree 1685′ from DER, 277′ right of centerline, 75′ AGL/770′ MSL.
Sign 5668′ from DER, 1924′ left of centerline, 86′ AGL/874′ MSL.
Trees 5614′ from DER, 1796′ right of centerline, 100′ AGL/939′ MSL.
Building 5779′ from DER, 1733′ right of centerline, 72′ AGL/910′ MSL.
Pole 1 NM from DER, 1835′ right of centerline, 157′ AGL/973′ MSL.
Building 1.1 NM from DER, 2170′ left of centerline, 122′ AGL/886′ MSL.
Multiple buildings beginning 1.1 NM from DER, 378′ left of centerline, up to 142′ AGL/918′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB PPI	APP CRS	Rwy Idg	4004
400	304°	TDZE	704
		Apt Elev	705

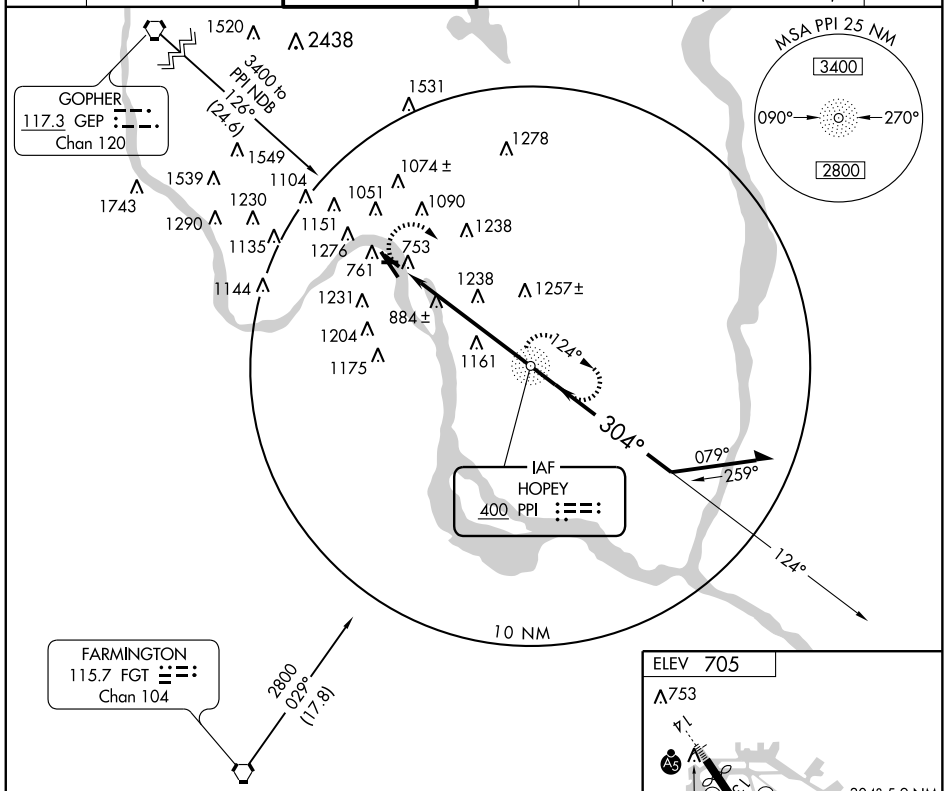
NDB RWY 31

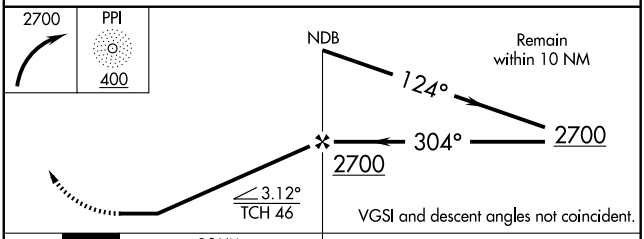
ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

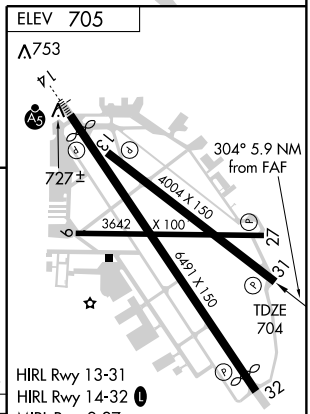
NA

MISSED APPROACH: Climbing right turn to 2700 direct PPI NDB and hold.

ATIS	MINNEAPOLIS APP CON	ST. PAUL TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
118.35	121.2 357.4	119.1(CTAF) L 257.8	121.675	121.675	121.675 (when tower closed)	122.95







HIRL Rwy 13-31
HIRL Rwy 14-32 L
MIRL Rwy 9-27
REIL Rwys 31 and 32

CATEGORY	A	B	C	D
S-31	1600-1¼ 896 (900-1¼)		1600-2¾ 896 (900-2¾)	1600-3 896 (900-3)
CIRCLING	1600-1¼ 895 (900-1¼)		1600-2¾ 895 (900-2¾)	1600-3 895 (900-3)

FAF to MAP 5.9 NM

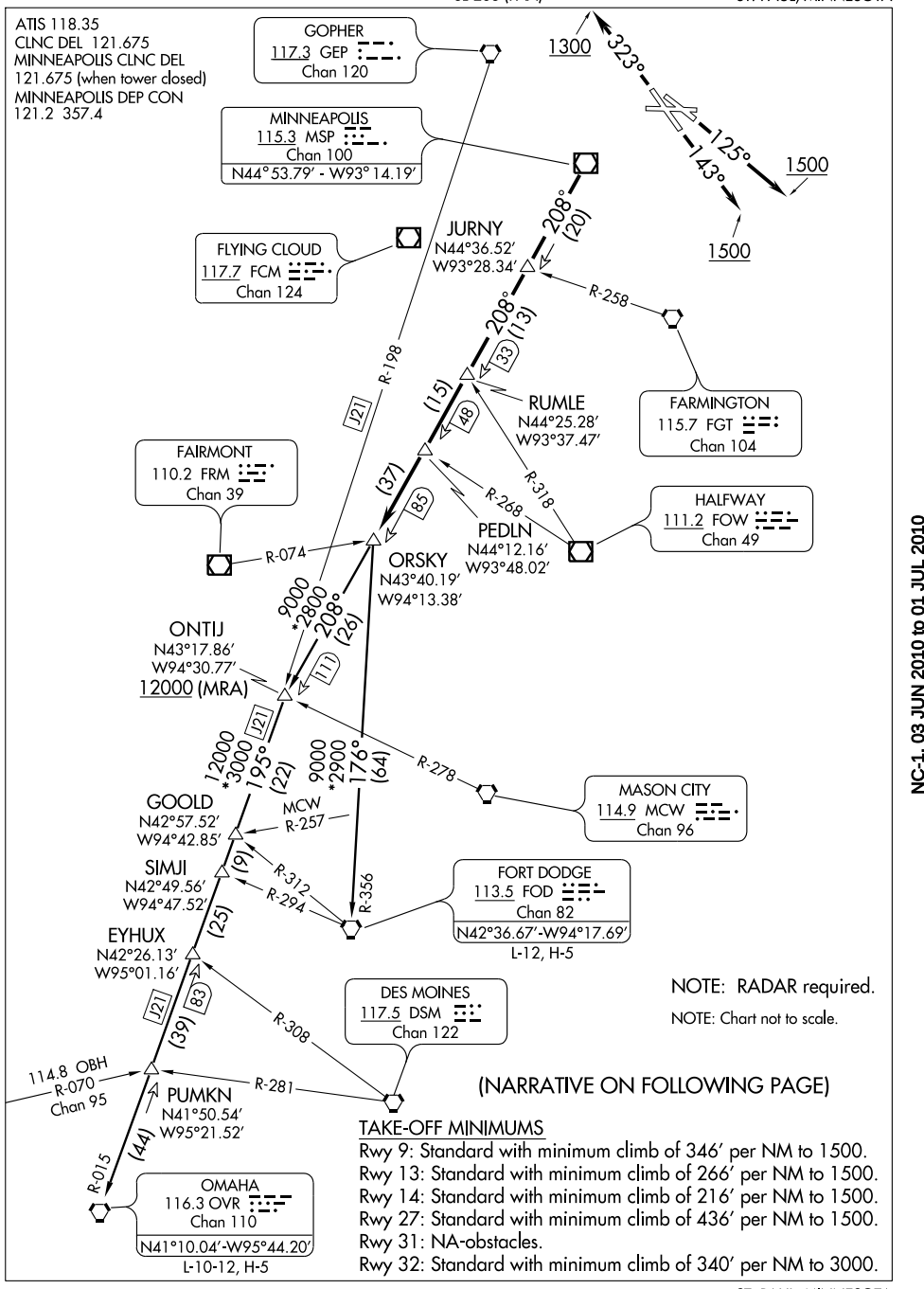
Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

NC-1. 03 JUN 2010 to 01 JUL 2010

(ORSKY4.ORSKY) 10098

ORSKY FOUR DEPARTURE

ST.PAUL DOWNTOWN HOLMAN FIELD (STP)
SL-263 (FAA) ST. PAUL, MINNESOTA



TAKE-OFF MINIMUMS

Rwy 9: Standard with minimum climb of 346′ per NM to 1500.
Rwy 13: Standard with minimum climb of 266′ per NM to 1500.
Rwy 14: Standard with minimum climb of 216′ per NM to 1500.
Rwy 27: Standard with minimum climb of 436′ per NM to 1500.
Rwy 31: NA-obstacles.
Rwy 32: Standard with minimum climb of 340′ per NM to 3000.

NC-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF RUNWAYS 9, 27: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-208 to ORSKY INT/ MSP 85 DME, thence....

TAKE-OFF RUNWAY 13: Climb heading 125° to 1500 for radar vectors to MSP VOR/DME then via MSP R-208 to ORSKY INT/ MSP 85 DME, thence....

TAKE-OFF RUNWAY 14: Climb heading 143° to 1500 for radar vectors to MSP VOR/DME then via MSP R-208 to ORSKY INT/ MSP 85 DME, thence....

TAKE-OFF RUNWAY 32: Climb heading 323° to 1300 for radar vectors to MSP VOR/DME then via MSP R-208 to ORSKY INT/ MSP 85 DME, thence....

....via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

FORT DODGE TRANSITION (ORSKY4.FOD): From over ORSKY INT via FOD R-356 to FOD VORTAC.

OMAHA TRANSITION (ORSKY4.OVR): From over ORSKY INT via MSP R-208 to ONTIJ INT then via OVR R-015 to OVR VORTAC.

TAKE-OFF OBSTACLE NOTES

RWY 9: Multiple trees beginning 1265' from DER, 167' right of centerline, up to 75' AGL/1055' MSL.
Multiple trees beginning 1.1 NM from DER, 124' left of centerline, up to 100' AGL/1099' MSL.
OL tank 1571' from DER, 771' right of centerline, 50' AGL/811' MSL.
Mobile crane 1163' from DER, 123' left of centerline, 50' AGL/758' MSL.

RWY 13: OL stack 2695' from DER, 842' right of centerline, 50' AGL/820' MSL.
Tree 1563' from DER, 25' right of centerline, 61' AGL/748' MSL.
Multiple trees beginning 1004' from DER, 607' left of centerline, 50' AGL/767' MSL.
Tower 1725' from DER, 930' left of centerline, 47' AGL/753' MSL
Vent on building 3029' from DER, 629' right of centerline, 10' AGL/783' MSL.
Multiple bushes beginning 194' from DER, 88' left of centerline, 7' AGL/712' MSL.
Stack 1879' from DER, 25' left of centerline, 51' AGL/751' MSL

RWY 14: Multiple trees beginning 805' from DER, 2' right of centerline, up to 112' AGL/811' MSL.
Multiple trees beginning 1205' from DER, 64' left of centerline, up to 80' AGL/770' MSL.
Poles 2810' from DER, 715' right of centerline, 91' AGL/778' MSL.

RWY 27: Multiple trees beginning 803' from DER, 122' left of centerline, up to 100' AGL/994' MSL.
Tree 783' from DER, 105' right of centerline, 25' AGL/725' MSL.
OL antenna 996' from DER, 304' right of centerline, 67' AGL/767' MSL.
Light pole 1328' from DER, 222' left of centerline, 50' AGL/747' MSL.
Building 2049' from DER, 837' right of centerline, 57' AGL/761' MSL.
Flagpole 2333' from DER, 199' left of centerline, 78' AGL/778' MSL.
Stack 1.8 NM from DER, 635' left of centerline, 569' AGL/1279' MSL.

RWY 32: Road and vehicle 211' from DER, 482' left of centerline, 17' AGL/717' MSL.
Railroad beginning 369' from DER, 329' left of centerline, up to 23' AGL/727' MSL.
Pipe on DME 383' from DER, 269' right of centerline, 17' AGL/722' MSL.
Tree 1152' from DER, 209' left of centerline, 44' AGL/744' MSL.
Tree 1685' from DER, 277' right of centerline, 75' AGL/770' MSL.
Sign 5668' from DER, 1924' left of centerline, 86' AGL/874' MSL.
Trees 5614' from DER, 1796' right of centerline, 100' AGL/939' MSL.
Building 5779' from DER, 1733' right of centerline, 72' AGL/910' MSL.
Pole 1 NM from DER, 1835' right of centerline, 157' AGL/973' MSL.
Building 1.1 NM from DER, 2170' left of centerline, 122' AGL/886' MSL.
Multiple buildings beginning 1.1 NM from DER, 378' left of centerline, up to 142' AGL/918' MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	6148
143°	TDZE	705
	Apt Elev	705

RNAV (GPS) RWY 14

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

DME/DME RNP-0.3 NA.
Circling to Rwy 9, 13, 27 NA at night.
Straight-in minimums NA at night.

MALSR

MISSED APPROACH: Climbing left turn to 3000 direct WHISK and hold.

ATIS	MINNEAPOLIS APP CON	ST. PAUL TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
118.35	121.2 357.4	119.1(CTAF) L 257.8	121.675	121.675	121.675 (when tower closed)	122.95

Procedure NA for arrival on GEP VORTAC airway radials 085 CW 159.

4 NM
014°
194°
WHISK

(IAF) GOPHER GEP
3000
114°
(5.8)
(IF) TEPAW
2800
133°
(6.2)
(FAF) MRANN
143°

2438
1520
1531
1549
1539
1743
1104
1074±
1051
1090
1290
1230
1151
1135
1276
RW14
753
761
1238
1278
1144
1231
884±
1238
1257±
1204
1161
1175

MSA RW14 25 NM
3500

ELEV 705
143° to RW14
753
TDZE 705
727±
4004 X 150
3642 X 100
6491 X 150
27
31
32

TEPAW
3000
Procedure Turn NA
133°
MRANN
3.05° TCH 54
2.4 NM to RW13
2800
143°
RW14
3000
WHISK
VGSI and descent angles not coincident.
6.2 NM
3.9 NM
2.4 NM

CATEGORY	A	B	C	D
LNAV MDA	1520-1 815 (900-1)	1520-1¼ 815 (900-1¼)	1520-2½ 815 (900-2½)	1520-2¾ 815 (900-2¾)
CIRCLING	1580-1 875 (900-1)	1580-1¼ 875 (900-1¼)	1580-2½ 875 (900-2½)	1580-2¾ 875 (900-2¾)

HIRL Rwy 13-31
HIRL Rwy 14-32 L
MIRL Rwy 9-27
REIL Rwys 31 and 32

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	6109
CH 50123	323°	TDZE	704
W32A		Apt Elev	705

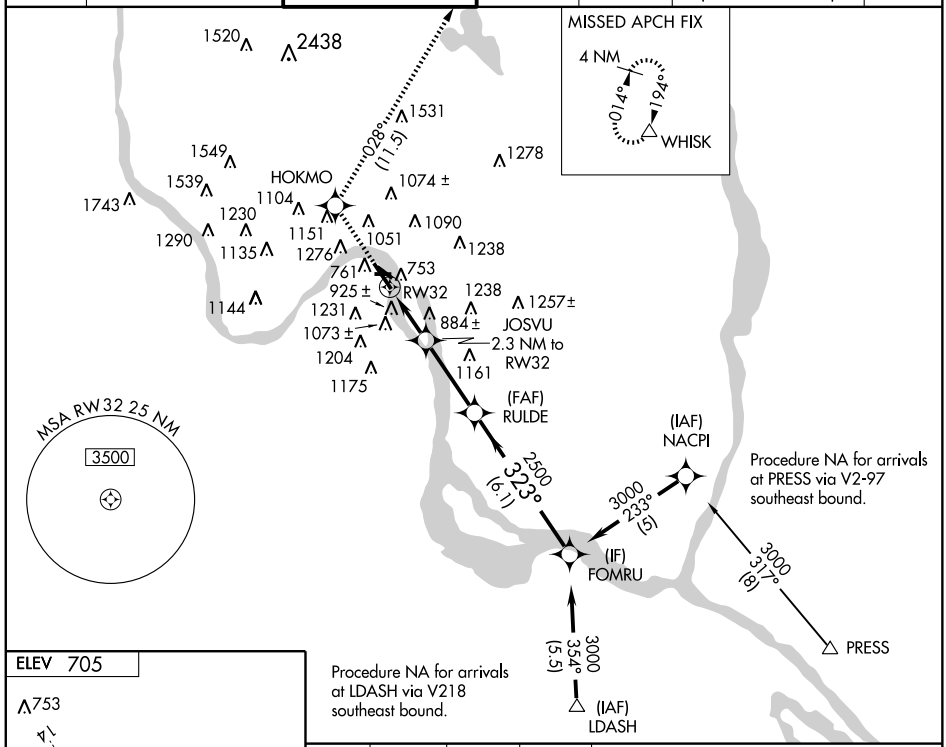
RNAV (GPS) RWY 32

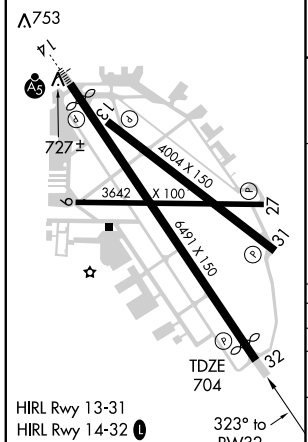
ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

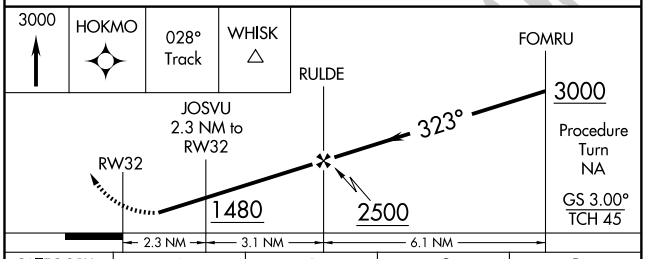
DME/DME RNP-0.3 NA.
Baro-VNAV NA below -16°C (4°F).
Circling to Rwy 9, 13, 27 NA at night.

MISSED APPROACH: Climb to 3000 direct HOKMO and via 028° track to WHISK and hold.

ATIS	MINNEAPOLIS APP CON	ST. PAUL TOWER ★	GND CON	CLNC DEL	MINNEAPOLIS CLNC DEL	UNICOM
118.35	121.2 357.4	119.1(CTAF) L 257.8	121.675	121.675	121.675 (when tower closed)	122.95







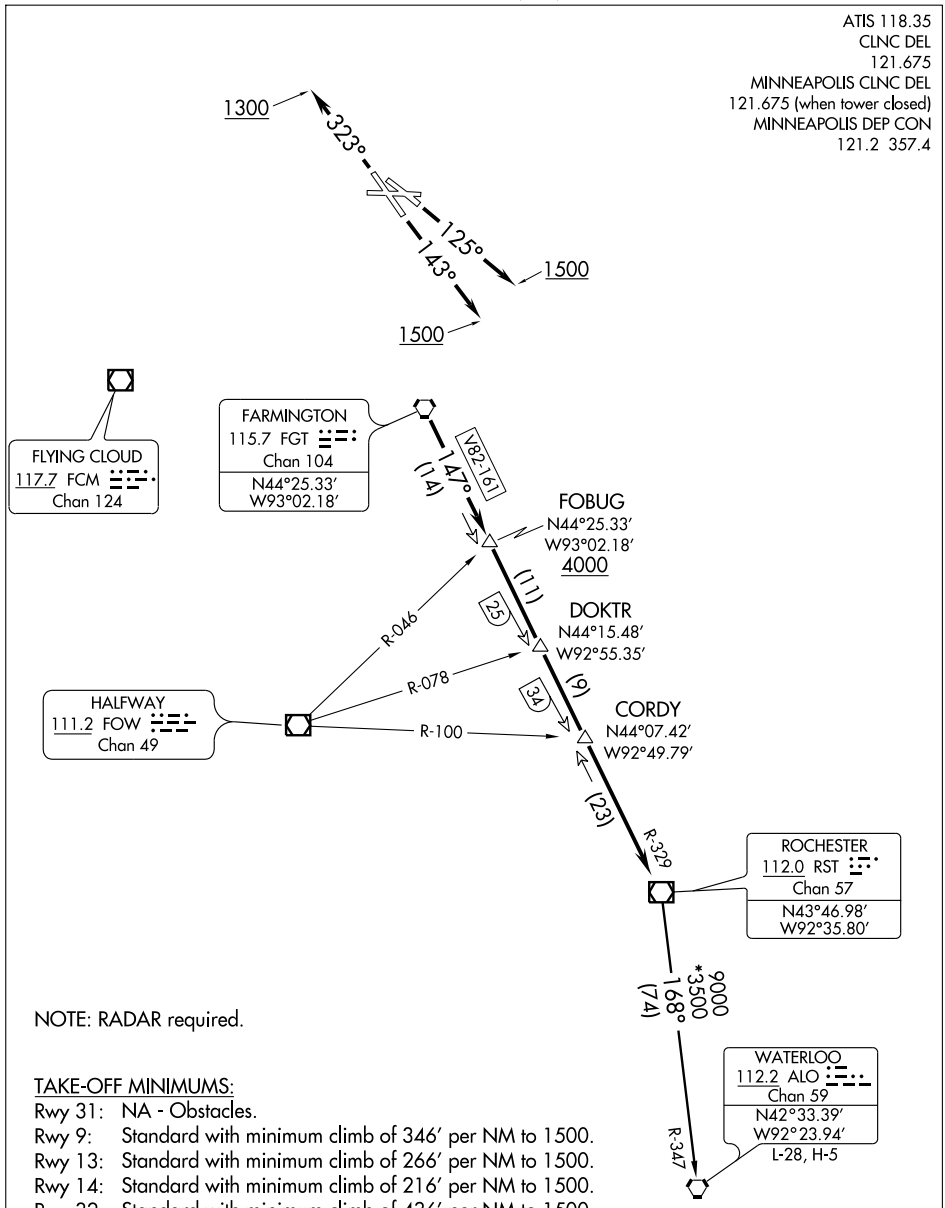
CATEGORY	A	B	C	D
LPV DA	1082-1¼ 378 (400-1¼)			
LNAV/VNAV DA	1377-2½ 673 (700-2½)			
LNAV MDA	1320-1 616 (700-1)		1320-1¾ 616 (700-1¾)	1320-2 616 (700-2)
CIRCLING	1580-2½ 875 (900-2½)			1580-2¾ 875 (900-2¾)

NC-1. 03 JUN 2010 to 01 JUL 2010

ROCHESTER FOUR DEPARTURE

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)
SL-263 (FAA)
ST. PAUL, MINNESOTA

ATIS 118.35
CLNC DEL
121.675
MINNEAPOLIS CLNC DEL
121.675 (when tower closed)
MINNEAPOLIS DEP CON
121.2 357.4



NOTE: RADAR required.

TAKE-OFF MINIMUMS:

Rwy 31: NA - Obstacles.
Rwy 9: Standard with minimum climb of 346′ per NM to 1500.
Rwy 13: Standard with minimum climb of 266′ per NM to 1500.
Rwy 14: Standard with minimum climb of 216′ per NM to 1500.
Rwy 32: Standard with minimum climb of 436′ per NM to 1500.
Standard with minimum climb of 340′ per NM to 3000.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

NC-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF RUNWAYS 9, 27: Fly assigned heading and altitude for radar vectors to FGT VORTAC then via FGT R-147 and RST R-329 to RST VOR/DME. Cross FOBUG INT/ FGT 14 DME at or above 4000, Thence....

TAKE-OFF RUNWAY 13: Climb heading 125° to 1500 for radar vectors to FGT VORTAC then via FGT R-147 and RST R-329 to RST VOR/DME. Cross FOBUG INT/FGT 14 DME at or above 4000, Thence....

TAKE-OFF RUNWAY 14: Climb heading 143° to 1500 for radar vectors to FGT VORTAC then via FGT R-147 and RST R-329 to RST VOR/DME. Cross FOBUG INT/ FGT 14 DME at or above 4000, Thence....

TAKE-OFF RUNWAY 32: Climb heading 323° to 1300 for radar vectors to FGT VORTAC then via FGT R-147 and RST R-329 to RST VOR/DME. Cross FOBUG INT/ FGT 14 DME at or above 4000, Thence....

....via assigned transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

WATERLOO TRANSITION (RST4.ALO): From over RST VOR/DME via RST R-168 and ALO R-347 to ALO VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 9: Multiple trees beginning 1265′ from DER, 167′ right of centerline, up to 75′ AGL/1055′ MSL. Multiple trees beginning 1.1 NM from DER, 124′ left of centerline, up to 100′ AGL/1099′ MSL. OL tank 1571′ from DER, 771′ right of centerline, 50′ AGL/811′ MSL. Mobile crane 1163′ from DER, 123′ left of centerline, 50′ AGL/758′ MSL.

RWY 13: OL stack 2695′ from DER, 842′ right of centerline, 50′ AGL/820′ MSL. Tree 1563′ from DER, 25′ right of centerline, 61′ AGL/748′ MSL. Multiple trees beginning 1004′ from DER, 607′ left of centerline, 50′ AGL/767′ MSL. Tower 1725′ from DER, 930′ left of centerline, 47′ AGL/753′ MSL. Vent on building 3029′ from DER, 629′ right of centerline, 10′ AGL/783′ MSL. Multiple bushes beginning 194′ from DER, 88′ left of centerline, 7′ AGL/712′ MSL. Stack 1879′ from DER, 25′ left of centerline, 51′ AGL/751′ MSL.

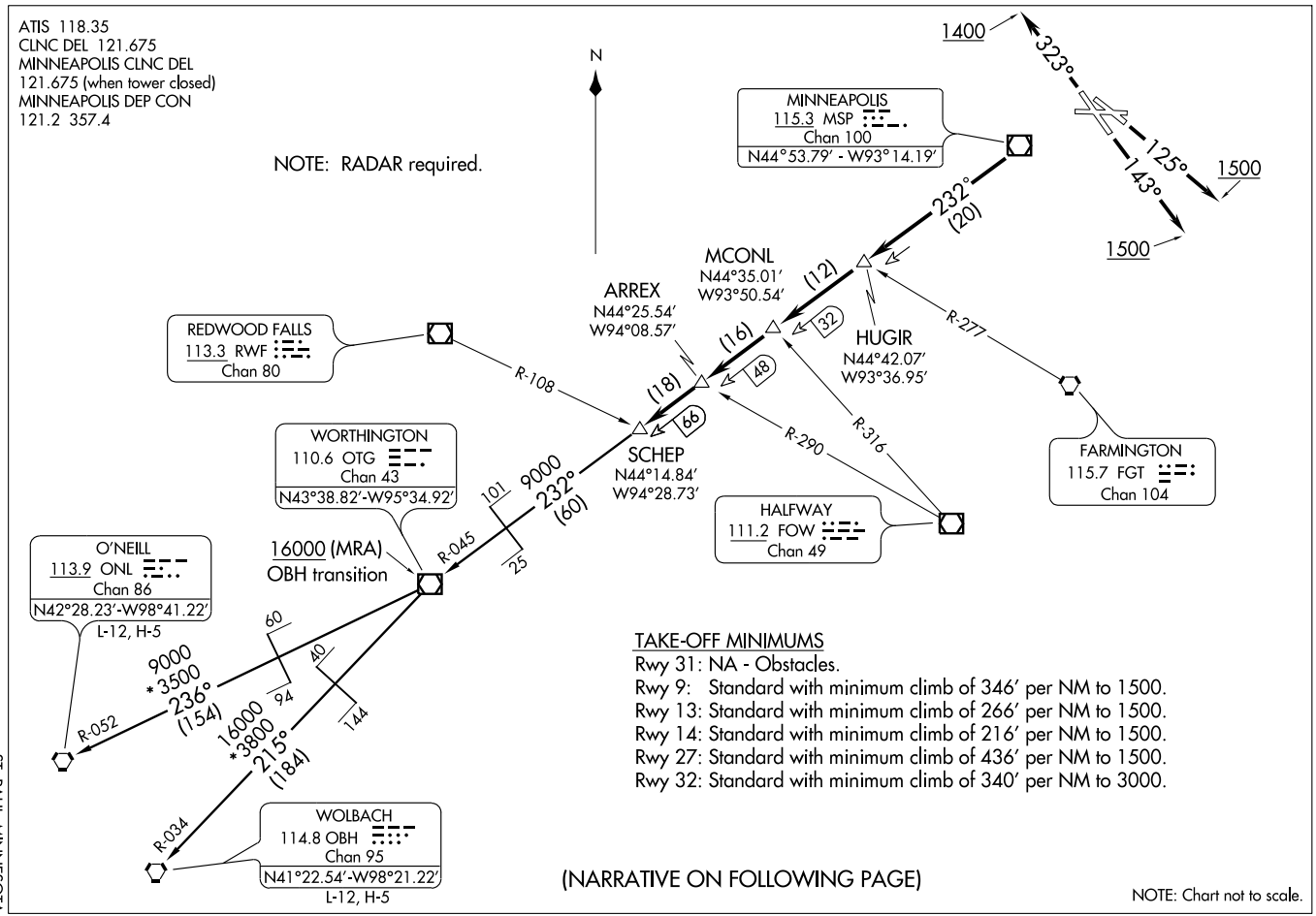
RWY 14: Multiple trees beginning 805′ from DER, 2′ right of centerline, up to 112′ AGL/811′ MSL. Multiple trees beginning 1205′ from DER, 64′ left of centerline, up to 80′ AGL/770′ MSL. Poles 2810′ from DER, 715′ right of centerline, 91′ AGL/778′ MSL.

RWY 27: Multiple trees beginning 803′ from DER, 122′ left of centerline, up to 100′ AGL/994′ MSL. Tree 783′ from DER, 105′ right of centerline, 25′ AGL/725′ MSL. OL antenna 996′ from DER, 304′ right of centerline, 67′ AGL/767′ MSL. Light pole 1328′ from DER, 222′ left of centerline, 50′ AGL/747′ MSL. Building 2049′ from DER, 837′ right of centerline, 57′ AGL/761′ MSL. Flagpole 2333′ from DER, 199′ left of centerline, 78′ AGL/778′ MSL. Stack 1.8 NM from DER, 635′ left of centerline, 569′ AGL/1279′ MSL.

RWY 32: Road and vehicle 211′ from DER, 482′ left of centerline, 17′ AGL/717′ MSL. Railroad beginning 369′ from DER, 329′ left of centerline, up to 23′ AGL/727′ MSL. Pipe on DME 383′ from DER, 269′ right of centerline, 17′ AGL/722′ MSL. Tree 1152′ from DER, 209′ left of centerline, 44′ AGL/744′ MSL. Tree 1685′ from DER, 277′ right of centerline, 75′ AGL/770′ MSL. Sign 5668′ from DER, 1924′ left of centerline, 86′ AGL/874′ MSL. Trees 5614′ from DER, 1796′ right of centerline, 100′ AGL/939′ MSL. Building 5779′ from DER, 1733′ right of centerline, 72′ AGL/910′ MSL. Pole 1 NM from DER, 1835′ right of centerline, 157′ AGL/973′ MSL. Building 1.1 NM from DER, 2170′ left of centerline, 122′ AGL/886′ MSL. Multiple buildings beginning 1.1 NM from DER, 378′ left of centerline, up to 142′ AGL/918′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

SCHEP THREE DEPARTURE



DEPARTURE ROUTE DESCRIPTON

TAKE-OFF RUNWAYS 9, 27: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-232 to SCHEP INT/MSP 66 DME,
Thence

TAKE-OFF RUNWAY 13: Climb heading 125° to 1500 for radar vectors to MSP VOR/DME then via MSP R-232 to SCHEP INT/MSP 66 DME,
Thence

TAKE-OFF RUNWAY 14: Climb heading 143° to 1500 for radar vectors to MSP VOR/DME then via MSP R-232 to SCHEP INT/MSP 66 DME,
Thence

TAKE-OFF RUNWAY 32: Climb heading 323° to 1400 for radar vectors to MSP VOR/DME then via MSP R-232 to SCHEP INT/MSP 66 DME,
Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

O'NEILL TRANSITION (SCHEP3.ONL): From over SCHEP INT via OTG R-045 to OTG VOR/DME, then via OTG R-236 and ONL R-052 to ONL VORTAC.

WOLBACH TRANSITION (SCHEP3.OBH): From over SCHEP INT via OTG R-045 to OTG VOR/DME, then via OTG R-215 and OBH R-034 to OBH VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 9: Multiple trees beginning 1265′ from DER, 167′ right of centerline, up to 75′ AGL/1055′ MSL. Multiple trees beginning 1.1 NM from DER, 124′ left of centerline, up to 100′ AGL/1099′ MSL. OL tank 1571′ from DER, 771′ right of centerline, 50′ AGL/811′ MSL. Mobile crane 1163′ from DER, 123′ left of centerline, 50′ AGL/758′ MSL.

RWY 13: OL stack 2695′ from DER, 842′ right of centerline, 50′ AGL/820′ MSL. Tree 1563′ from DER, 25′ right of centerline, 61′ AGL/748′ MSL. Multiple trees beginning 1004′ from DER, 607′ left of centerline, 50′ AGL/767′ MSL. Tower 1725′ from DER, 930′ left of centerline, 47′ AGL/753′ MSL. Vent on building 3029′ from DER, 629′ right of centerline, 10′ AGL/783′ MSL. Multiple bushes beginning 194′ from DER, 88′ left of centerline, 7′ AGL/712′ MSL. Stack 1879′ from DER, 25′ left of centerline, 51′ AGL/751′ MSL.

RWY 14: Multiple trees beginning 805′ from DER, 2′ right of centerline, up to 112′ AGL/811′ MSL. Multiple trees beginning 1205′ from DER, 64′ left of centerline, up to 80′ AGL/770′ MSL. Poles 2810′ from DER, 715′ right of centerline, 91′ AGL/778′ MSL.

RWY 27: Multiple trees beginning 803′ from DER, 122′ left of centerline, up to 100′ AGL/994′ MSL. Tree 783′ from DER, 105′ right of centerline, 25′ AGL/725′ MSL. OL antenna 996′ from DER, 304′ right of centerline, 67′ AGL/767′ MSL. Light pole 1328′ from DER, 222′ left of centerline, 50′ AGL/747′ MSL. Building 2049′ from DER, 837′ right of centerline, 57′ AGL/761′ MSL. Flagpole 2333′ from DER, 199′ left of centerline, 78′ AGL/778′ MSL. Stack 1.8 NM from DER, 635′ left of centerline, 569′ AGL/1279′ MSL.

RWY 32: Road and vehicle 211′ from DER, 482′ left of centerline, 17′ AGL/717′ MSL. Railroad beginning 369′ from DER, 329′ left of centerline, up to 23′ AGL/727′ MSL. Pipe on DME 383′ from DER, 269′ right of centerline, 17′ AGL/722′ MSL. Tree 1152′ from DER, 209′ left of centerline, 44′ AGL/744′ MSL. Tree 1685′ from DER, 277′ right of centerline, 75′ AGL/770′ MSL. Sign 5668′ from DER, 1924′ left of centerline, 86′ AGL/874′ MSL. Trees 5614′ from DER, 1796′ right of centerline, 100′ AGL/939′ MSL. Building 5779′ from DER, 1733′ right of centerline, 72′ AGL/910′ MSL. Pole 1 NM from DER, 1835′ right of centerline, 157′ AGL/973′ MSL. Building 1.1 NM from DER, 2170′ left of centerline, 122′ AGL/886′ MSL. Multiple buildings beginning 1.1 NM from DER, 378′ left of centerline, up to 142′ AGL/918′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

(TWOLF.TWOLF2) 10154

TWOLF TWO ARRIVAL

ST-264 (FAA)

MINNEAPOLIS, MINNESOTA

MINNEAPOLIS APP CON
126.95 335.5
118.72 (MSP RWY 35)
MINNEAPOLIS ATIS
135.35 239.275
ANOKA COUNTY ATIS 120.625
CRYSTAL ATIS 124.475
FLYING CLOUD ATIS 124.9
ST. PAUL DOWNTOWN ATIS
118.35

L.O. SIMENSTAD MUNI
ANOKA COUNTY-BLAINE AIRPORT (JANES FIELD)
NEW RICHMOND RGNL
CRYSTAL
ST. PAUL DOWNTOWN HOLMAN FIELD
FLYING CLOUD
MINNEAPOLIS-ST. PAUL INTL/ WOLD CHAMBERLAIN
AIRLAKE

GOPHER
117.3 GEP
Chan 120

FLYING CLOUD
117.7 FCM
Chan 124
N44°49.54′-W93°27.41′

FARMINGTON
115.7 FGT
Chan 104
N44°37.86′-W93°10.92′

MANKATO
110.8 MKT
Chan 45

FORT DODGE
113.5 FOD
Chan 82
N42°36.67′-W94°17.69′
L-12, H-5

300°
R-103
330°
(11)
R-180
R-178
R-201
(8)
5000
(36)
360°
(17)
(9)
(55)
021°
5000
(10)
R-081
6000
(62)
(7)
8000
(22)
(84)
12000
358°
(28)
(112)
12000
032°
(30)
(52)
R-178
GEP
12000
*2900
032°
(22)

SLIKK
N44°47.90′
W93°17.21′

TRGET
N44°13.88′-W93°27.73′

VERTICAL NAVIGATION PLANNING INFORMATION

MSP: Expect clearance to cross at 11000.
All other airports:
Turbojets: Expect clearance to cross at 8000.
Turboprops: Expect clearance to cross at 7000.

GDNEE
N44°30.68′
W93°15.98′

PIKKL
N44°22.82′
W93°21.49′

LYNKS
N44°06.89′
W93°28.39′

KGEEE
N43°44.94′
W93°30.47′

TWOLF
N43°17.00′
W93°33.09′

TICKT
N42°53.71′
W93°59.01′

NOTE: DME and RADAR Required.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

NC-1, 03 JUN 2010 to 01 JUL 2010

TWOLF TWO ARRIVAL

ARRIVAL DESCRIPTION

FORT DODGE TRANSITION (FOD.TWOLF2): From over FOD VORTAC via FOD R-032 to TWOLF/FOD 52 DME, Thence

....From over TWOLF/GEP 112 DME via GEP R-178 to KGEEE/GEP 84 DME, then as depicted to TRGET INT/GEP 55 DME. Thence....

LANDING MSP RWYS 12L/R: From over TRGET INT via FGT R-201 to FGT VORTAC, then via FGT R-330 to SLIKK INT/FGT 11 DME, then via heading 300° for radar vectors to final approach course.

LANDING MSP RWYS 30L/R, 4, 22, 17, 35: From over TRGET INT via FGT R-201 to FGT VORTAC, then via radar vectors to final approach course.

LANDING ALL OTHER AIRPORTS: From over TRGET INT via FCM R-180 to FCM VOR/DME, then expect radar vectors to final approach course.

NC-1. 03 JUN 2010 to 01 JUL 2010

(UKN3.UKN) 10042

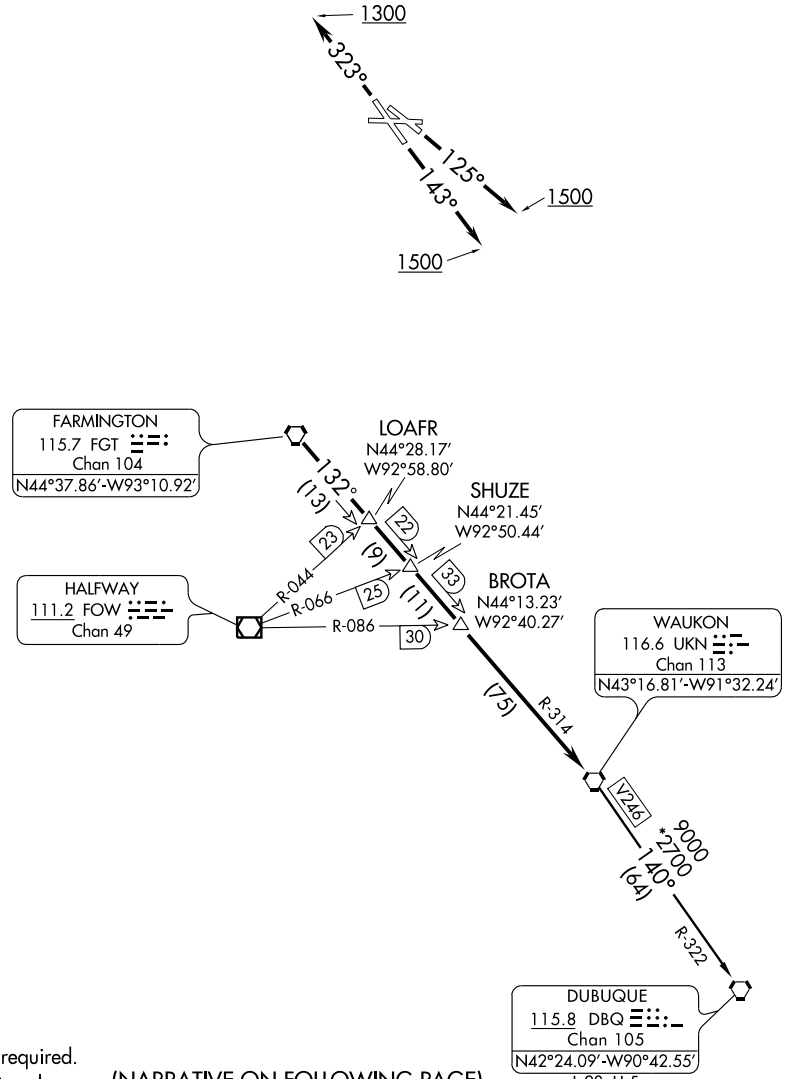
WAUKON THREE DEPARTURE

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)
SL-263 (FAA)
ST. PAUL, MINNESOTA

TAKE-OFF MINIMUMS

Rwy 9: Standard with minimum climb of 346′ per NM to 1500.
Rwy 13: Standard with minimum climb of 266′ per NM to 1500.
Rwy 14: Standard with minimum climb of 216′ per NM to 1500.
Rwy 27: Standard with minimum climb of 436′ per NM to 1500.
Rwy 31: NA - Obstacles.
Rwy 32: Standard with minimum climb of 340′ per NM to 3000.

ATIS 118.35
CLNC DEL
121.675
MINNEAPOLIS CLNC DEL
121.675 (when tower closed)
MINNEAPOLIS DEP CON
121.2 357.4
ST. PAUL TOWER ★
119.1 (CTAF) 257.8



NOTE: RADAR required.
NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

L-28, H-5

NC-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF RUNWAYS 9, 27: Fly assigned heading and altitude for radar vectors to FGT VORTAC then via FGT R-132 and UKN R-314 to UKN VORTAC, thence

TAKE-OFF RUNWAY 13: Climb heading 125° to 1500 for radar vectors to FGT VORTAC then via FGT R-132 and UKN R-314 to UKN VORTAC, thence

TAKE-OFF RUNWAY 14: Climb heading 143° to 1500 for radar vectors to FGT VORTAC then via FGT R-132 and UKN R-314 to UKN VORTAC, thence

TAKE-OFF RUNWAY 32: Climb heading 323° to 1300 for radar vectors to FGT VORTAC then via FGT R-132 and UKN R-314 to UKN VORTAC, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

DUBUQUE TRANSITION (UKN3.DBQ): From over UKN VORTAC via UKN R-140 and DBQ R-322 to DBQ VORTAC.

TAKE-OFF OBSTACLE NOTES

RWY 9: Multiple trees beginning 1265′ from DER, 167′ right of centerline, up to 75′ AGL/1055′ MSL.
Multiple trees beginning 1.1 NM from DER, 124′ left of centerline, up to 100′ AGL/1099′ MSL.
OL tank 1571′ from DER, 771′ right of centerline, 50′ AGL/811′ MSL.
Mobile crane 1163′ from DER, 123′ left of centerline, 50′ AGL/758′ MSL.

RWY 13: OL stack 2695′ from DER, 842′ right of centerline, 50′ AGL/820′ MSL.
Tree 1563′ from DER, 25′ right of centerline, 61′ AGL/748′ MSL.
Multiple trees beginning 1004′ from DER, 607′ left of centerline, 50′ AGL/767′ MSL.
Tower 1725′ from DER, 930′ left of centerline, 47′ AGL/753′ MSL
Vent on building 3029′ from DER, 629′ right of centerline, 10′ AGL/783′ MSL.
Multiple bushes beginning 194′ from DER, 88′ left of centerline, 7′ AGL/712′ MSL.
Stack 1879′ from DER, 25′ left of centerline, 51′ AGL/751′ MSL.

RWY 14: Multiple trees beginning 805′ from DER, 2′ right of centerline, up to 112′ AGL/811′ MSL.
Multiple trees beginning 1205′ from DER, 64′ left of centerline, up to 80′ AGL/770′ MSL.
Poles 2810′ from DER, 715′ right of centerline, 91′ AGL/778′ MSL.

RWY 27: Multiple trees beginning 803′ from DER, 122′ left of centerline, up to 100′ AGL/994′ MSL.
Tree 783′ from DER, 105′ right of centerline, 25′ AGL/725′ MSL.
OL antenna 996′ from DER, 304′ right of centerline, 67′ AGL/767′ MSL.
Light pole 1328′ from DER, 222′ left of centerline, 50′ AGL/747′ MSL.
Building 2049′ from DER, 837′ right of centerline, 57′ AGL/761′ MSL.
Flagpole 2333′ from DER, 199′ left of centerline, 78′ AGL/778′ MSL.
Stack 1.8 NM from DER, 635′ left of centerline, 569′ AGL/1279′ MSL.

RWY 32: Road and vehicle 211′ from DER, 482′ left of centerline, 17′ AGL/717′ MSL.
Railroad beginning 369′ from DER, 329′ left of centerline, up to 23′ AGL/727′ MSL.
Pipe on DME 383′ from DER, 269′ right of centerline, 17′ AGL/722′ MSL.
Tree 1152′ from DER, 209′ left of centerline, 44′ AGL/744′ MSL.
Tree 1685′ from DER, 277′ right of centerline, 75′ AGL/770′ MSL.
Sign 5668′ from DER, 1924′ left of centerline, 86′ AGL/874′ MSL.
Trees 5614′ from DER, 1796′ right of centerline, 100′ AGL/939′ MSL.
Building 5779′ from DER, 1733′ right of centerline, 72′ AGL/910′ MSL.
Pole 1 NM from DER, 1835′ right of centerline, 157′ AGL/973′ MSL.
Building 1.1 NM from DER, 2170′ left of centerline, 122′ AGL/886′ MSL.
Multiple buildings beginning 1.1 NM from DER, 378′ left of centerline, up to 142′ AGL/918′ MSL.

WLSTN THREE DEPARTURE

(WLSTN3.WLSTN) 10042

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

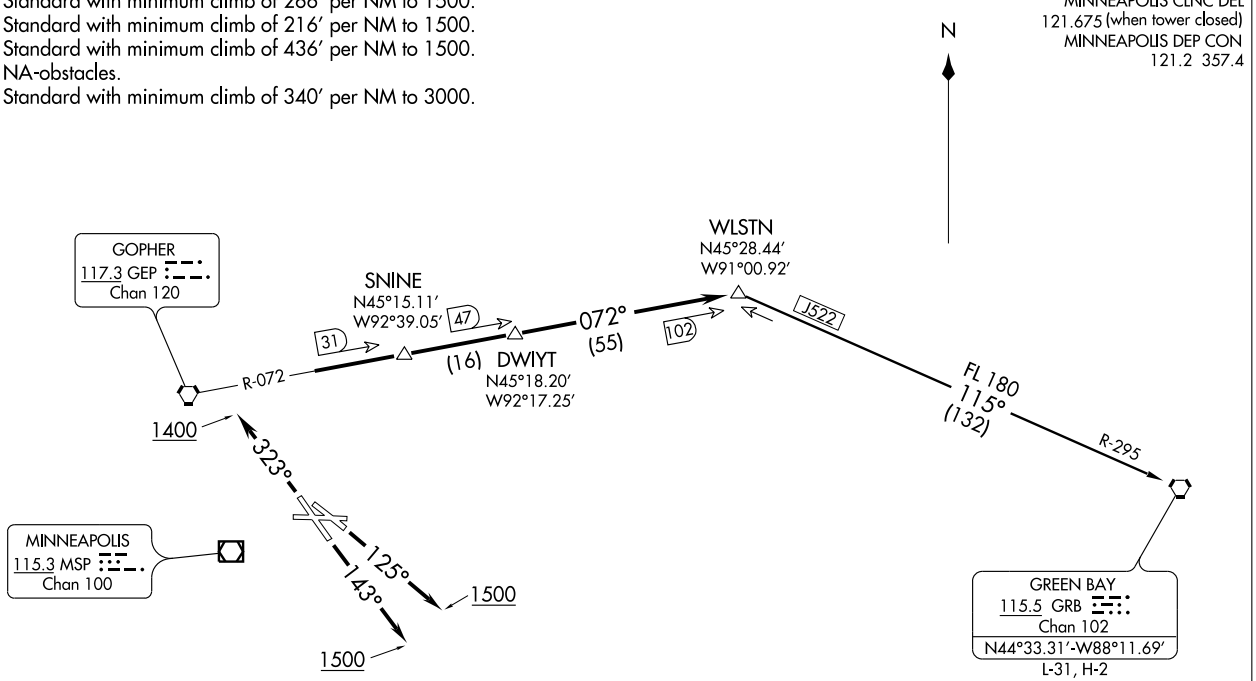
ST. PAUL, MINNESOTA

SL-263 (FAA)

ATIS 118.35
CLNC DEL
121.675
MINNEAPOLIS CLNC DEL
121.675 (when tower closed)
MINNEAPOLIS DEP CON
121.2 357.4

TAKE-OFF MINIMUMS

Rwy 9: Standard with minimum climb of 346′ per NM to 1500.
Rwy 13: Standard with minimum climb of 266′ per NM to 1500.
Rwy 14: Standard with minimum climb of 216′ per NM to 1500.
Rwy 27: Standard with minimum climb of 436′ per NM to 1500.
Rwy 31: NA-obstacles.
Rwy 32: Standard with minimum climb of 340′ per NM to 3000.



NOTE: RADAR and DME required.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF RUNWAYS 9, 27: Fly assigned heading and altitude for radar vectors to GEP R-072 to WLSTN/GEP 102 DME, thence

TAKE-OFF RUNWAY 13: Climb heading 125° to 1500 for radar vectors to GEP R-072 to WLSTN/GEP 102 DME, thence

TAKE-OFF RUNWAY 14: Climb heading 143° to 1500 for radar vectors to GEP R-072 to WLSTN/GEP 102 DME, thence

TAKE-OFF RUNWAY 32: Climb heading 323° to 1400 for radar vectors to GEP R-072 to WLSTN/GEP 102 DME, thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

GREEN BAY TRANSITION (WLSTN3.GRB): From over WLSTN via GRB R-295 to GRB VORTAC.

TAKE-OFF OBSTACLE NOTES

RWY 9: Multiple trees beginning 1265′ from DER, 167′ right of centerline, up to 75′ AGL/1055′ MSL.
Multiple trees beginning 1.1 NM from DER, 124′ left of centerline, up to 100′ AGL/1099′ MSL.
OL tank 1571′ from DER, 771′ right of centerline, 50′ AGL/811′ MSL.
Mobile crane 1163′ from DER, 123′ left of centerline, 50′ AGL/758′ MSL.

RWY 13: OL stack 2695′ from DER, 842′ right of centerline, 50′ AGL/820′ MSL.
Tree 1563′ from DER, 25′ right of centerline, 61′ AGL/748′ MSL.
Multiple trees beginning 1004′ from DER, 607′ left of centerline, 50′ AGL/767′ MSL.
Tower 1725′ from DER, 930′ left of centerline, 47′ AGL/753′ MSL.
Vent on building 3029′ from DER, 629′ right of centerline, 10′ AGL/783′ MSL.
Multiple bushes beginning 194′ from DER, 88′ left of centerline, 7′ AGL/712′ MSL.
Stack 1879′ from DER, 25′ left of centerline, 51′ AGL/751′ MSL.

RWY 14: Multiple trees beginning 805′ from DER, 2′ right of centerline, up to 112′ AGL/811′ MSL.
Multiple trees beginning 1205′ from DER, 64′ left of centerline, up to 80′ AGL/770′ MSL.
Poles 2810′ from DER, 715′ right of centerline, 91′ AGL/778′ MSL.

RWY 27: Multiple trees beginning 803′ from DER, 122′ left of centerline, up to 100′ AGL/994′ MSL.
Tree 783′ from DER, 105′ right of centerline, 25′ AGL/725′ MSL.
OL antenna 996′ from DER, 304′ right of centerline, 67′ AGL/767′ MSL.
Light pole 1328′ from DER, 222′ left of centerline, 50′ AGL/747′ MSL.
Building 2049′ from DER, 837′ right of centerline, 57′ AGL/761′ MSL.
Flagpole 2333′ from DER, 199′ left of centerline, 78′ AGL/778′ MSL.
Stack 1.8 NM from DER, 635′ left of centerline, 569′ AGL/1279′ MSL.

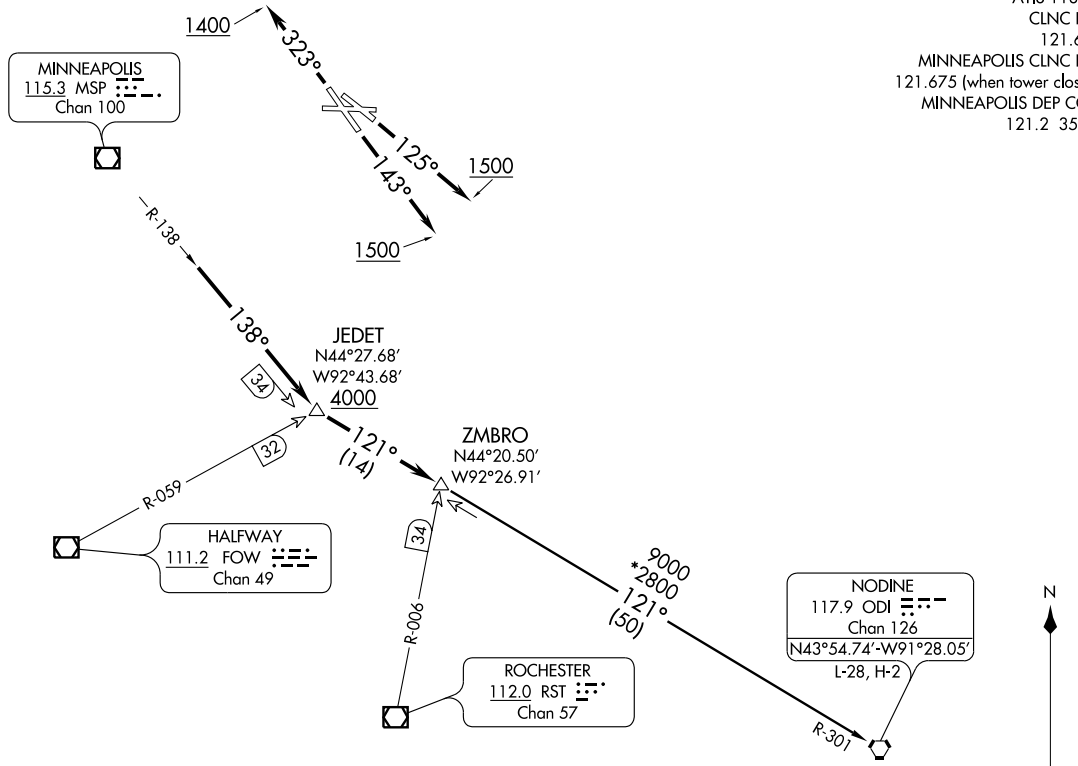
RWY 32: Road and vehicle 211′ from DER, 482′ left of centerline, 17′ AGL/717′ MSL.
Railroad beginning 369′ from DER, 329′ left of centerline, up to 23′ AGL/727′ MSL.
Pipe on DME 383′ from DER, 269′ right of centerline, 17′ AGL/722′ MSL.
Tree 1152′ from DER, 209′ left of centerline, 44′ AGL/744′ MSL.
Tree 1685′ from DER, 277′ right of centerline, 75′ AGL/770′ MSL.
Sign 5668′ from DER, 1924′ left of centerline, 86′ AGL/874′ MSL.
Trees 5614′ from DER, 1796′ right of centerline, 100′ AGL/939′ MSL.
Building 5779′ from DER, 1733′ right of centerline, 72′ AGL/910′ MSL.
Pole 1 NM from DER, 1835′ right of centerline, 157′ AGL/973′ MSL.
Building 1.1 NM from DER, 2170′ left of centerline, 122′ AGL/886′ MSL.
Multiple buildings beginning 1.1 NM from DER, 378′ left of centerline, up to 142′ AGL/918′ MSL.

ZMBRO THREE DEPARTURE

ST.PAUL DOWNTOWN HOLMAN FIELD (STP)
ST. PAUL, MINNESOTA

SL-263 (FAA)

ATIS 118.35
CLNC DEL
121.675
MINNEAPOLIS CLNC DEL
121.675 (when tower closed)
MINNEAPOLIS DEP CON
121.2 357.4



TAKE-OFF MINIMUMS:
Rwy 31: NA - Obstacles.
Rwy 9: Standard with minimum climb of 346′ per NM to 1500.
Rwy 13: Standard with minimum climb of 266′ per NM to 1500.
Rwy 14: Standard with minimum climb of 216′ per NM to 1500.
Rwy 27: Standard with minimum climb of 436′ per NM to 1500.
Rwy 32: Standard with minimum climb of 340′ per NM to 3000.

NOTE: RADAR Required

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTON

TAKE-OFF RUNWAYS 9, 27: Fly assigned heading and altitude for radar vectors to MSP VOR/DME then via MSP R-138 to JEDET INT/MSP 34 DME, at or above 4000; then via ODI R-301 to ZMBRO INT/ODI 50 DME, Thence

TAKE-OFF RUNWAY 13: Climb heading 125° to 1500 for radar vectors to MSP VOR/DME then via MSP R-138 to JEDET INT/MSP 34 DME, at or above 4000; then via ODI R-301 to ZMBRO INT/ODI 50 DME, Thence

TAKE-OFF RUNWAY 14: Climb heading 143° to 1500 for radar vectors to MSP VOR/DME then via MSP R-138 to JEDET INT/MSP 34 DME, at or above 4000; then via ODI R-301 to ZMBRO INT/ODI 50 DME, Thence

TAKE-OFF RUNWAY 32: Climb heading 323° to 1400 for radar vectors to MSP VOR/DME then via MSP R-138 to JEDET INT/MSP 34 DME, at or above 4000; then via ODI R-301 to ZMBRO INT/ODI 50 DME, Thence

. . . . via transition or assigned route. Expect clearance to filed altitude/flight level 10 (ten) minutes after departure.

NODINE TRANSITION (ZMBRO3.ODI): From over ZMBRO INT via ODI R-301 to ODI VORTAC.

TAKE-OFF OBSTACLE NOTES:

RWY 9: Multiple trees beginning 1265′ from DER, 167′ right of centerline, up to 75′ AGL/1055′ MSL. Multiple trees beginning 1.1 NM from DER, 124′ left of centerline, up to 100′ AGL/1099′ MSL. OL tank 1571′ from DER, 771′ right of centerline, 50′ AGL/811′ MSL. Mobile crane 1163′ from DER, 123′ left of centerline, 50′ AGL/758′ MSL.

RWY 13: OL stack 2695′ from DER, 842′ right of centerline, 50′ AGL/820′ MSL. Tree 1563′ from DER, 25′ right of centerline, 61′ AGL/748′ MSL. Multiple trees beginning 1004′ from DER, 607′ left of centerline, 50′ AGL/767′ MSL. Tower 1725′ from DER, 930′ left of centerline, 47′ AGL/753′ MSL. Vent on building 3029′ from DER, 629′ right of centerline, 10′ AGL/783′ MSL. Multiple bushes beginning 194′ from DER, 88′ left of centerline, 7′ AGL/712′ MSL. Stack 1879′ from DER, 25′ left of centerline, 51′ AGL/751′ MSL.

RWY 14: Multiple trees beginning 805′ from DER, 2′ right of centerline, up to 112′ AGL/811′ MSL. Multiple trees beginning 1205′ from DER, 64′ left of centerline, up to 80′ AGL/770′ MSL. Poles 2810′ from DER, 715′ right of centerline, 91′ AGL/778′ MSL.

RWY 27: Multiple trees beginning 803′ from DER, 122′ left of centerline, up to 100′ AGL/994′ MSL. Tree 783′ from DER, 105′ right of centerline, 25′ AGL/725′ MSL. OL antenna 996′ from DER, 304′ right of centerline, 67′ AGL/767′ MSL. Light pole 1328′ from DER, 222′ left of centerline, 50′ AGL/747′ MSL. Building 2049′ from DER, 837′ right of centerline, 57′ AGL/761′ MSL. Flagpole 2333′ from DER, 199′ left of centerline, 78′ AGL/778′ MSL. Stack 1.8 NM from DER, 635′ left of centerline, 569′ AGL/1279′ MSL.

RWY 32: Road and vehicle 211′ from DER, 482′ left of centerline, 17′ AGL/717′ MSL. Railroad beginning 369′ from DER, 329′ left of centerline, up to 23′ AGL/727′ MSL. Pipe on DME 383′ from DER, 269′ right of centerline, 17′ AGL/722′ MSL. Tree 1152′ from DER, 209′ left of centerline, 44′ AGL/744′ MSL. Tree 1685′ from DER, 277′ right of centerline, 75′ AGL/770′ MSL. Sign 5668′ from DER, 1924′ left of centerline, 86′ AGL/874′ MSL. Trees 5614′ from DER, 1796′ right of centerline, 100′ AGL/939′ MSL. Building 5779′ from DER, 1733′ right of centerline, 72′ AGL/910′ MSL. Pole 1 NM from DER, 1835′ right of centerline, 157′ AGL/973′ MSL. Building 1.1 NM from DER, 2170′ left of centerline, 122′ AGL/886′ MSL. Multiple buildings beginning 1.1 NM from DER, 378′ left of centerline, up to 142′ AGL/918′ MSL.

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB SAZ	APP CRS	Rwy Idg	3304
257	133°	TDZE	1287
		Apt Elev	1287

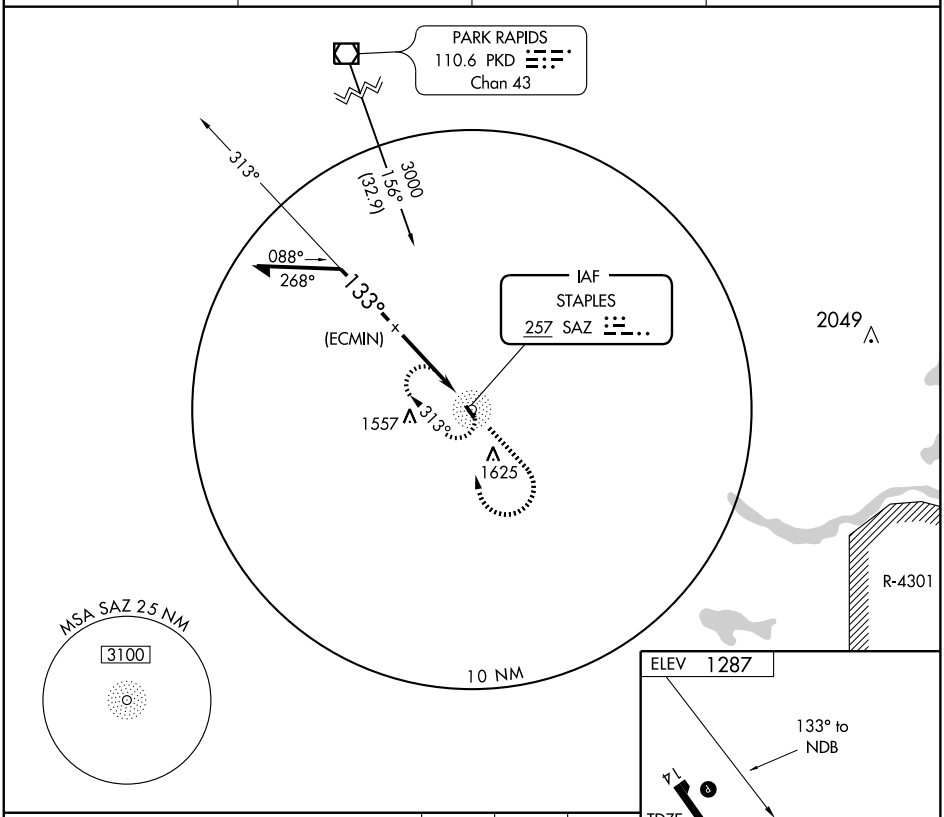
NDB or GPS RWY 14

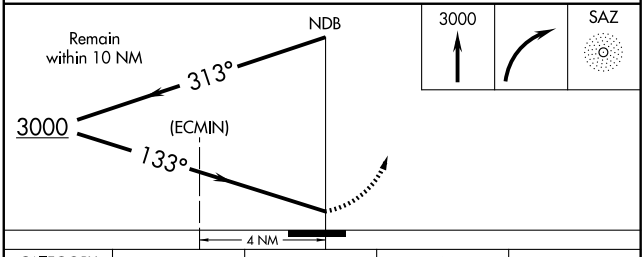
STAPLES MUNI (SAZ)

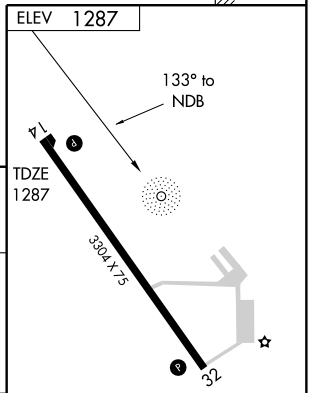
NA

MISSED APPROACH: Climb to 3000 then right turn direct SAZ NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	CTAF
118.325	118.05 239.0	121.725	122.9 L







CATEGORY	A	B	C	D
S-14	2220-1¼	933 (1000-1¼)	2220-2¾ 933 (1000-2¾)	NA
CIRCLING	2220-1¼	933 (1000-1¼)	2220-2¾ 933 (1000-2¾)	NA

REIL Rwys 14 and 32 L
MIRL Rwy 14-32 L

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC I-HYZ	APP CRS	Rwy Idg	6503
110.5	310°	TDZE	1115
		Apt Elev	1119

ILS or LOC RWY 31

THIEF RIVER FALLS RGNL (TVF)

When local altimeter setting not received, use Crookston altimeter setting and increase all DA 82 feet, and all MDA 100 feet and increase S-LOC Cat C/D visibility ¼ mile. For inoperative MALSR when using Crookston altimeter setting, increase visibility S-ILS 31 all Cats to 1 mile. Circling to Rwy 3/21 NA.

MALSR

MISSED APPROACH: Climb to 2700 then left turn direct TVF VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.4	132.15 269.6	122.8 (CTAF) L

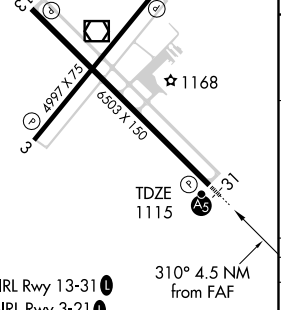
ALTERNATE MISSED APCH FIX

HARVI
HY
260
130°
310°

MSA HY 25 NM
2700

1505
1626±
1454
R-297
LOCALIZER 110.5
I-HYZ
1430
2700
128° (5.3)
297°
(IAF)
UGACU
TVF 12
R-253
1226±
THIEF RIVER FALLS
108.4 TVF
Chan 21
130°
min
310°
(IAF)
ZALSO
TVF 12
LR-117
R-114
LOM/IAF
HARVI
260 HY
TVF 5.3
LR-137
2700
310° (6.8)
2700 NoPT
TVF 12 Arc
(IF)
WEMUP
TVF 12
130°
2700 NoPT
TVF 12 Arc
10 NM

ELEV 1119 D

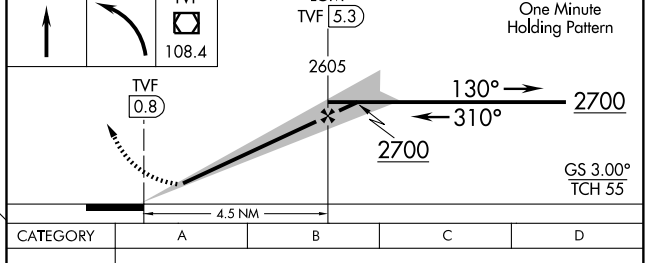


310° 4.5 NM from FAF

HIRL Rwy 13-31 L
MIRL Rwy 3-21 L
REIL Rwys 3, 13 and 21 L

FAF to MAP 4.5 NM					
Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

ADF or DME REQUIRED



CATEGORY	A	B	C	D
S-ILS 31	1315-½ 200 (200-½)			
S-LOC 31	1480-½ 365 (400-½)			1480-¾ 365 (400-¾)
CIRCLING	1540-1 421 (500-1)	1580-1 461 (500-1)	1580-1½ 461 (500-1½)	1680-2 561 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

LOM HY	APP CRS		
260	309°	Rwy Idg	6503
		TDZE	1115
		Apt Elev	1119

NDB RWY 31

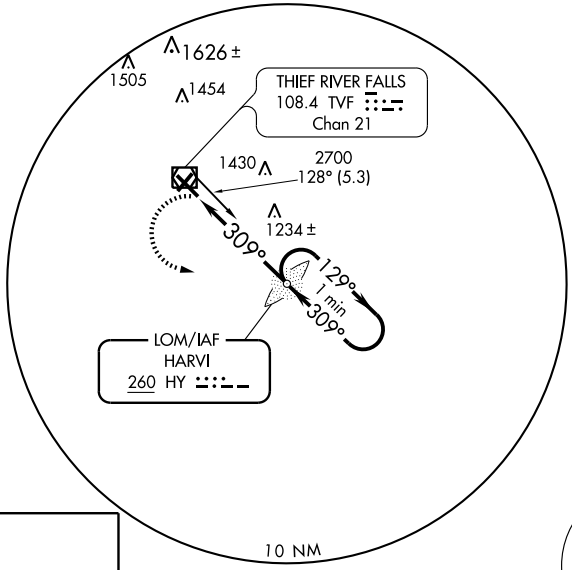
THIEF RIVER FALLS RGNL (TVF)

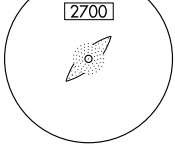
Circling to Rwy 3/21 NA.
When local altimeter setting not received, use Crookston altimeter setting and increase all MDA 100 feet and increase S-31 Cat C visibility ¼ mile and Cat D visibility ½ mile.

MALSR

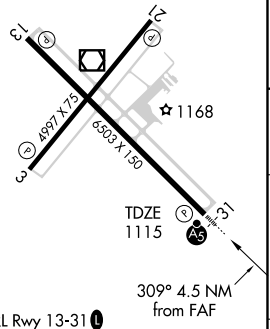
MISSED APPROACH: Climbing left turn to 2700 direct HY LOM and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.4	132.15 269.6	122.8 (CTAF) L



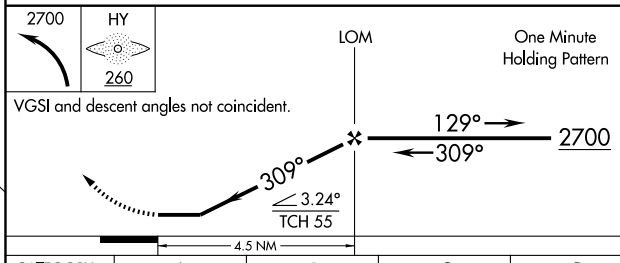


ELEV 1119 D



HIRL Rwy 13-31 L
MIRL Rwy 3-21 L
REIL Rwys 3, 13 and 21 L

FAF to MAP 4.5 NM					
Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30



CATEGORY	A	B	C	D
S-31	1540-¾ 425 (500-¾)			1540-1 425 (500-1)
CIRCLING	1540-1 421 (500-1)	1580-1 461 (500-1)	1580-1½ 461 (500-1½)	1680-2 561 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 72711 W13A	APP CRS 130°	Rwy Idg 6503 TDZE 1115 Apt Elev 1119

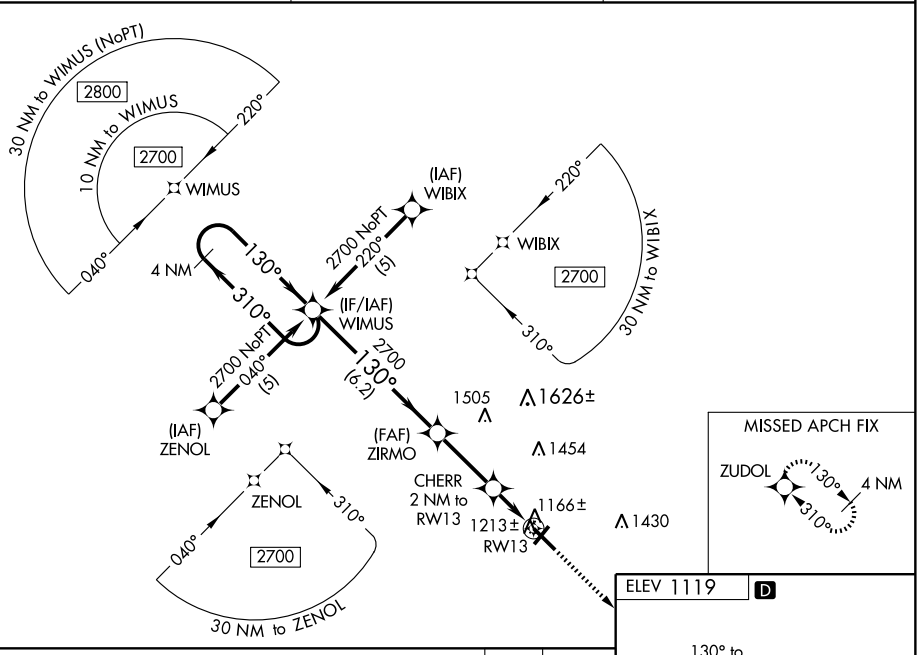
RNAV (GPS) RWY 13

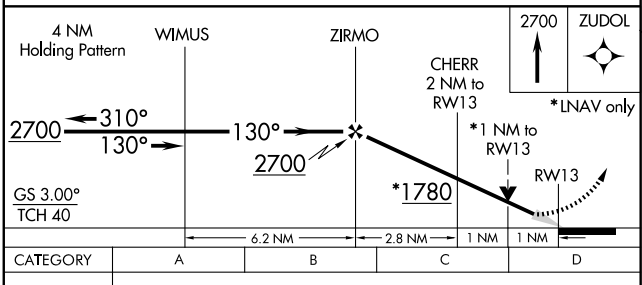
THIEF RIVER FALLS RGNL (TVF)

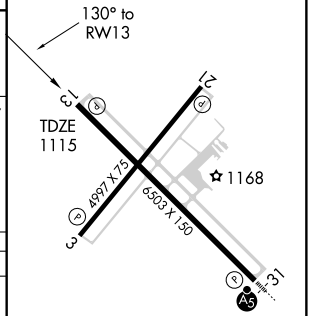
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Crookston altimeter setting and increase all DA 82 feet, and all MDA 100 feet and LPV and LNAV/VNAV all Cats and LNAV Cats C and D visibilities ¼ mile.
VDP and Baro-VNAV NA when using Crookston altimeter setting.
Circling to Rwy 3/21 NA.

MISSED APPROACH: Climb to 2700 direct ZUDOL and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.4	132.15 269.6	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1365-1 250 (300-1)			
LNAV/VNAV DA	1436-1¼ 321 (400-1¼)			
LNAV MDA	1480-1 365 (400-1)			1480-1¼ 365 (400-1¼)
CIRCLING	1540-1 421 (500-1)	1580-1 461 (500-1)	1580-1½ 461 (500-1½)	1680-2 561 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 3-21 L
REIL Rwys 3, 13 and 21 L

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 69311 W31A	APP CRS 310°	Rwy Idg 6503 TDZE 1115 Apt Elev 1119

RNAV (GPS) RWY 31

THIEF RIVER FALLS RGNL (TVF)

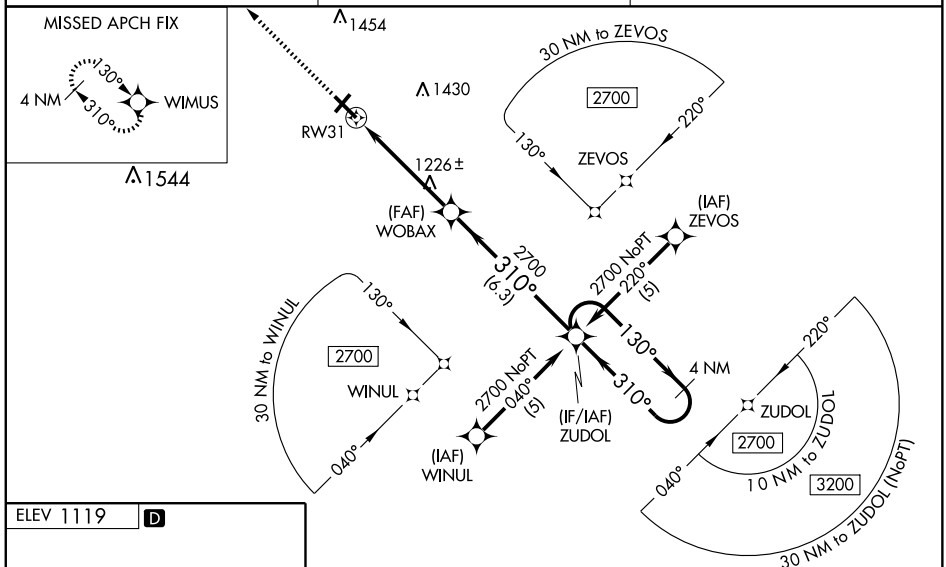
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA.

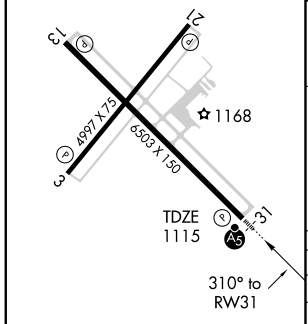
When local altimeter setting not received, use Crookston altimeter setting and increase all DA 82 feet, and all MDA 100 feet and LPV all Cats, LNAV/VNAV Cats A, B, and C and LNAV Cat C visibilities ¼ mile.
For inoperative MALSR when using Crookston altimeter setting, increase visibility LPV all Cats to 1¼ mile.
For inoperative MALSR increase visibility LNAV/VNAV Cat D to 1 mile and increase visibility LNAV Cat D to 1¼ mile.
VDP and Baro-VNAV NA when using Crookston altimeter setting.
Circling to Rwy 3/21 NA.

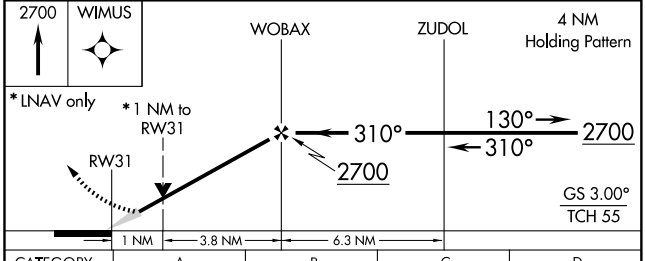
MALSR

MISSED APPROACH: Climb to 2700 direct WIMUS and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.4	132.15 269.6	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1365-½ 250 (300-½)			
LNAV/VNAV DA	1427-½ 312 (400-½)			1427-¾ 312 (400-¾)
LNAV MDA	1500-½ 385 (400-½)			1500-1 385 (400-1)
CIRCLING	1540-1 421 (500-1)	1580-1 461 (500-1)	1580-1½ 461 (500-1½)	1680-2 561 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 3-21 L
REIL Rwys 3, 13 and 21 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME TVF 108.4 Chan 21	APP CRS 117°	Rwy Idg 6503 TDZE 1114 Apt Elev 1116

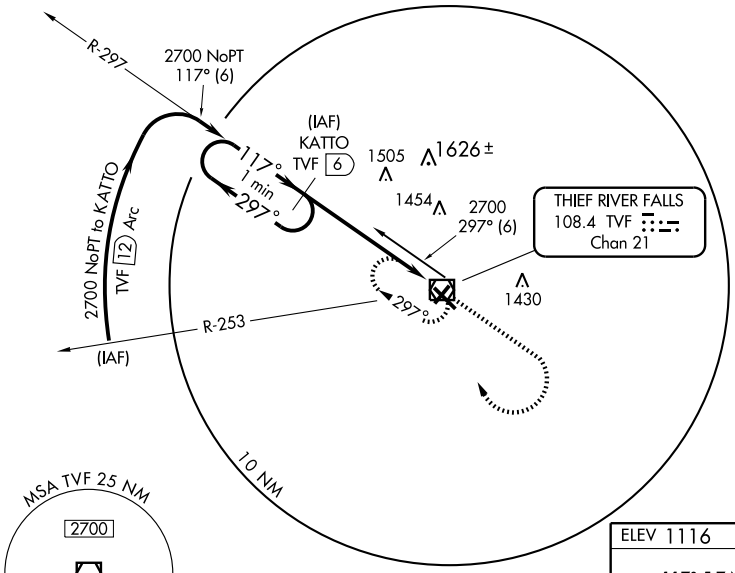
VOR/DME RWY 13

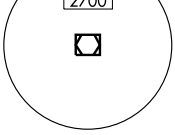
THIEF RIVER FALLS RGNL (TVF)

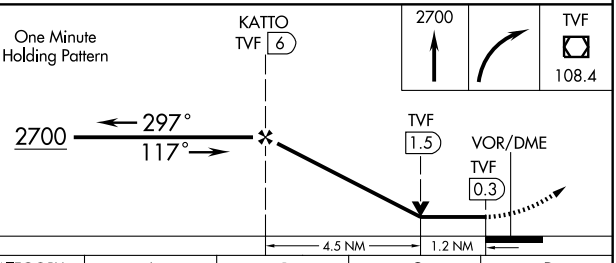
Circling to Rwy 3/21 NA.

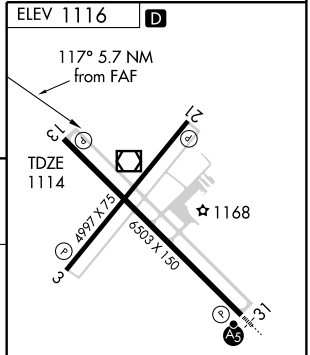
MISSED APPROACH: Climb to 2700 then right turn direct TVF VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.4	132.15 269.6	122.8 (CTAF) L









CATEGORY	A	B	C	D
S-13	1520-1 406 (500-1)		1520-1¼ 406 (500-1¼)	
CIRCLING	1540-1 424 (500-1)	1580-1 464 (500-1)	1580-1½ 464 (500-1½)	1680-2 564 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 3-21 L
REIL Rwys 3, 13 and 21 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME TVF	APP CRS	Rwy Idg	6503
108.4	312°	TDZE	1113
Chan 21		Apt Elev	1116

VOR/DME RWY 31

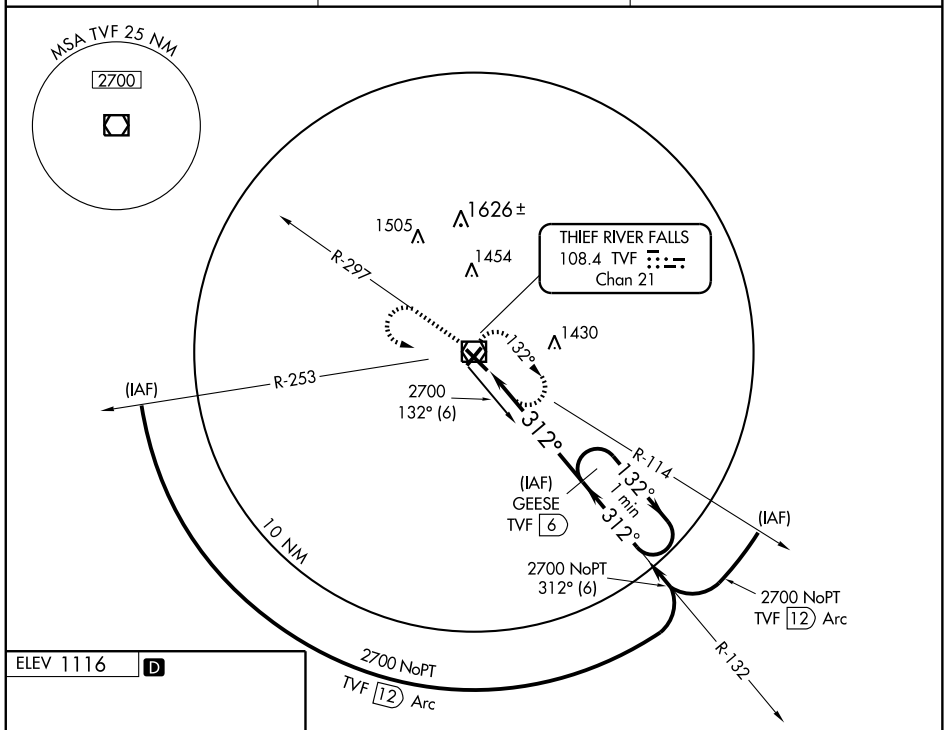
THIEF RIVER FALLS RGNL (TVF)

T Increase S-31 Cat D visibility ¼ mile for inoperative MALSR. Circling to Rwy 3/21 NA.

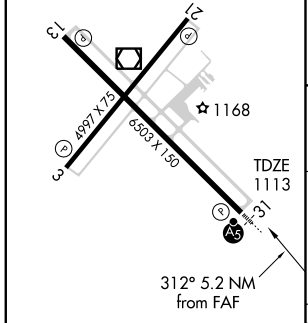
MALSR

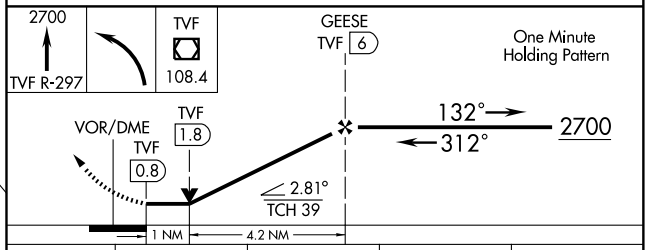
MISSED APPROACH: Climb to 2700 via TVF R-297 then left turn direct TVF VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.4	132.15 269.6	122.8 (CTAF) L



ELEV 1116 D





CATEGORY	A	B	C	D
S-31	1480-½ 367 (400-½)			1480-1 367 (400-1)
CIRCLING	1540-1 424 (500-1)	1580-1 464 (500-1)	1580-1½ 464 (500-1½)	1680-2 564 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 3-21 L
REIL Rwys 3, 13 and 21 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME TVF	APP CRS	Rwy Idg	6503
108.4	117°	TDZE	1115
Chan 21		Apt Elev	1119

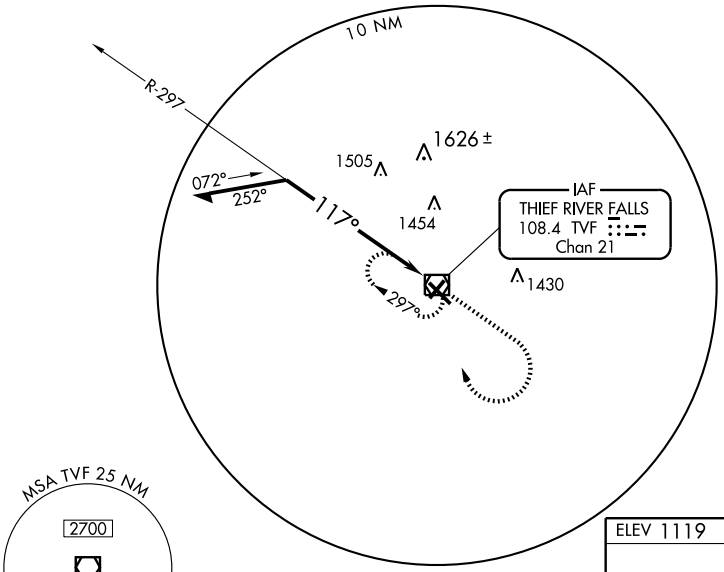
VOR RWY 13

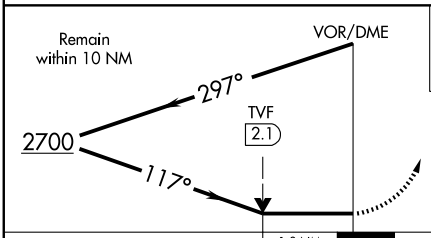
THIEF RIVER FALLS RGNL (TVF)

Circling to Rwy 3/21 NA.
VDP NA when using Crookston altimeter setting.
When local altimeter setting not received, use Crookston altimeter setting and increase all MDA 100 feet and increase Cat C and D visibilities ¼ mile.

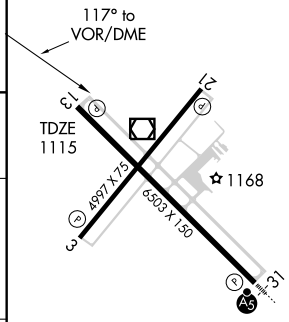
MISSED APPROACH: Climb to 2700 then right turn direct TVF VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.4	132.15 269.6	122.8 (CTAF) L





ELEV 1119 D



HIRL Rwy 13-31 L
MIRL Rwy 3-21 L
REIL Rwys 3, 13 and 21 L

CATEGORY	A	B	C	D
S-13	1740-1	625 (700-1)	1740-1¾ 625 (700-1¾)	1740-2 625 (700-2)
CIRCLING	1740-1	621 (700-1)	1740-1¾ 621 (700-1¾)	1740-2 621 (700-2)

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME TVF	APP CRS	Rwy Idg	6503
108.4	312°	TDZE	1113
Chan 21		Apt Elev	1116

VOR RWY 31

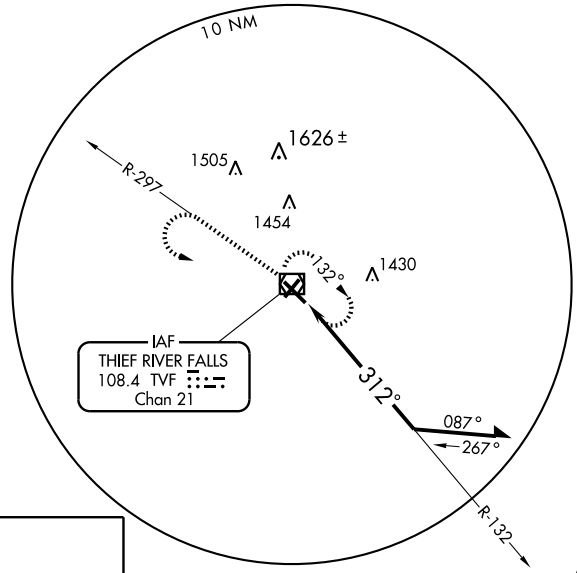
THIEF RIVER FALLS RGNL (TVF)

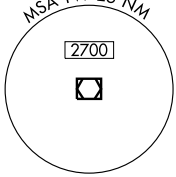
Circling to Rwy 3/21 NA.

MALSR

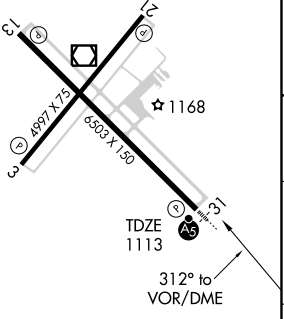
MISSED APPROACH: Climb to 2700 via TVF R-297 then left turn direct TVF VOR/DME and hold.

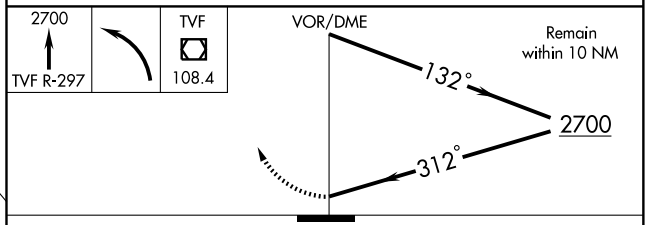
AWOS-3	MINNEAPOLIS CENTER	UNICOM
108.4	132.15 269.6	122.8 (CTAF) L





ELEV 1116 D





CATEGORY	A	B	C	D
S-31	1540-½ 427 (500-½)		1540-¾ 427 (500-¾)	1540-1 427 (500-1)
CIRCLING	1540-1 424 (500-1)	1580-1 464 (500-1)	1580-1½ 464 (500-1½)	1680-2 564 (600-2)

HIRL Rwy 13-31 L
MIRL Rwy 3-21 L
REIL Rwys 3, 13 and 21 L

NC-1. 03 JUN 2010 to 01 JUL 2010

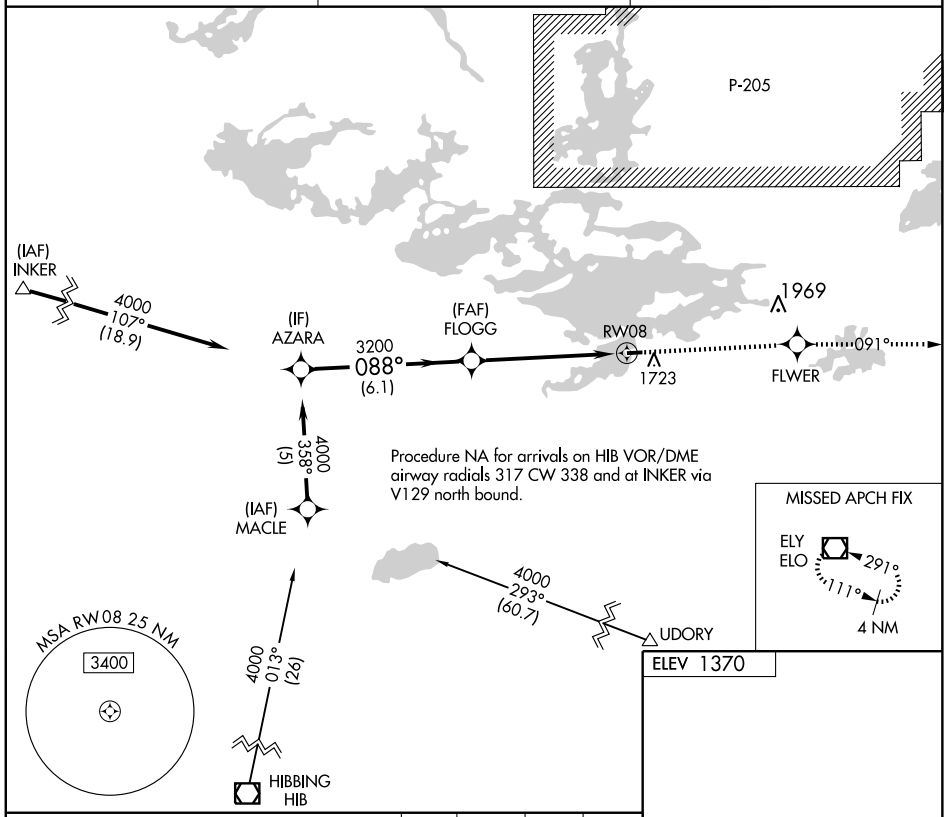
APP CRS	Rwy Idg	3400
088°	TDZE	1369
	Apt Elev	1370

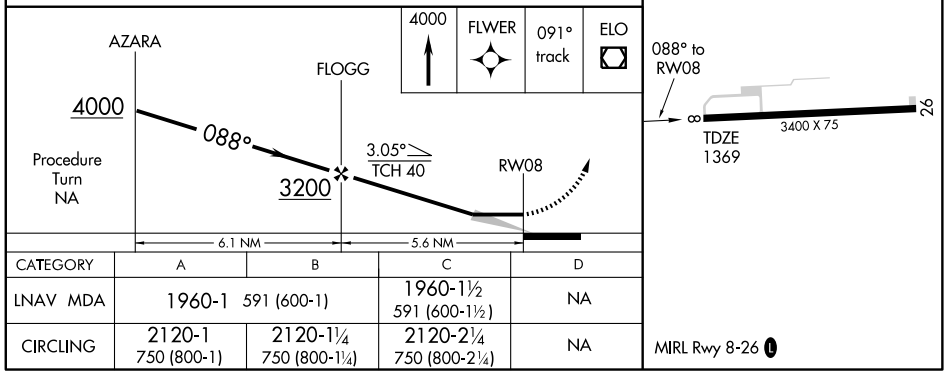
RNAV (GPS) RWY 8
TOWER MUNI (12D)

T ANA DME/DME RNP- 0.3 NA. Procedure NA at night. Use Cook altimeter setting, when not received, use Ely altimeter setting and increase all MDA 20 feet and increase LNAV Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 4000 direct FLWER and via 091° track to ELO VOR/DME and hold.

COOK AWOS-3	MINNEAPOLIS CENTER	CTAF
118.175	127.9 281.45	122.9 L





CATEGORY	A	B	C	D
LNAV MDA	1960-1 591 (600-1)		1960-1½ 591 (600-1½)	NA
CIRCLING	2120-1 750 (800-1)	2120-1¼ 750 (800-1¼)	2120-2¼ 750 (800-2¼)	NA

MIRL Rwy 8-26 L

NC-1. 03 JUN 2010 to 01 JUL 2010

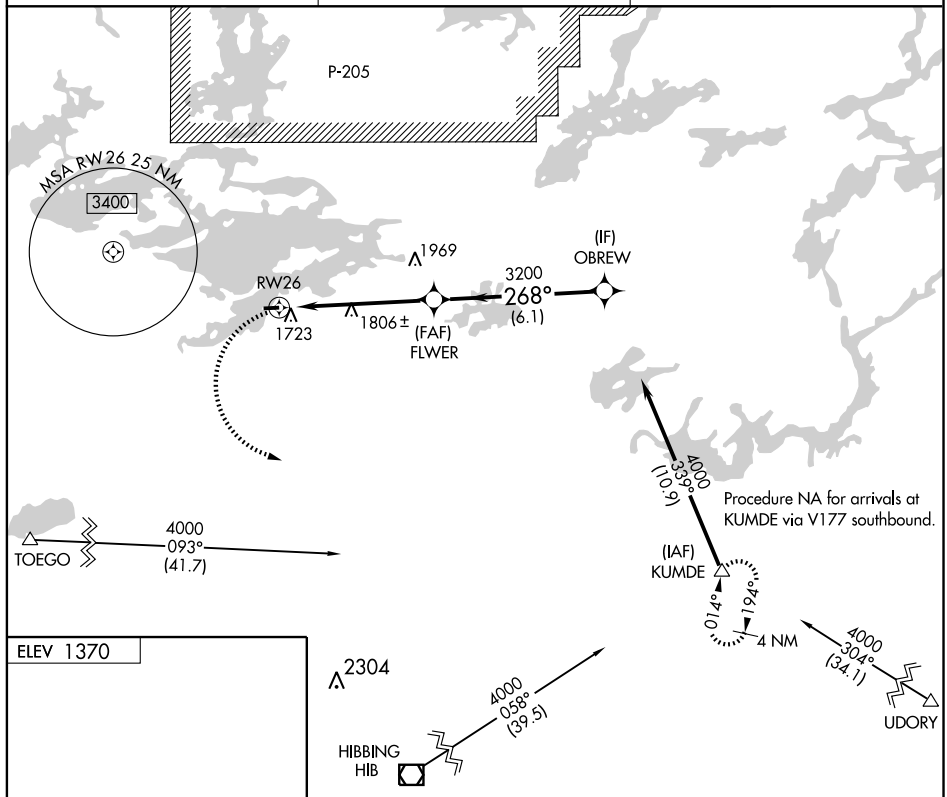
APP CRS	Rwy Idg	3400
268°	TDZE	1370
	Apt Elev	1370

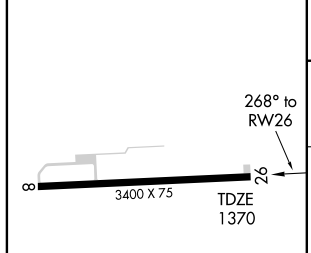
RNAV (GPS) RWY 26
TOWER MUNI (12D)

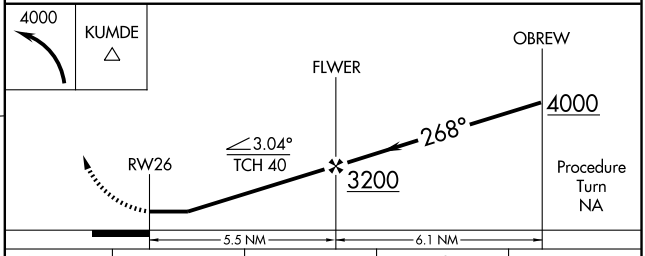
DME/DME RNP- 0.3 NA. Procedure NA at night.
Visibility reduction by helicopters NA.
Use Cook altimeter setting, when not received, use Ely altimeter setting and increase all MDA 20 feet and increase Cat B and C visibility ¼ mile.

MISSED APPROACH: Climbing left turn to 4000 direct KUMDE and hold.

COOK AWOS-3	MINNEAPOLIS CENTER	CTAF
118.175	127.9 281.45	122.9 L







CATEGORY	A	B	C	D
LNAV MDA	2100-1	730 (800-1)	2100-2 730 (800-2)	NA
CIRCLING	2120-1 750 (800-1)	2120-1¼ 750 (800-1¼)	2120-2¼ 750 (800-2¼)	NA

MIRL Rwy 8-26 L

NC-1, 03 JUN 2010 to 01 JUL 2010

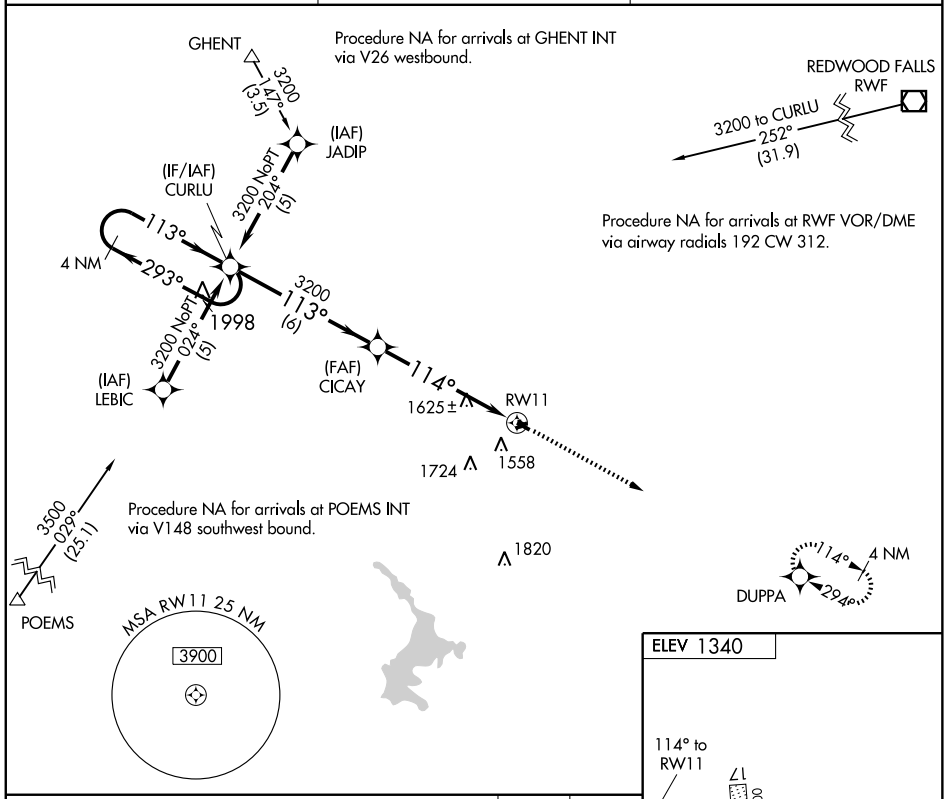
APP CRS	Rwy Idg	3100
114°	TDZE	1336
	Apt Elev	1340

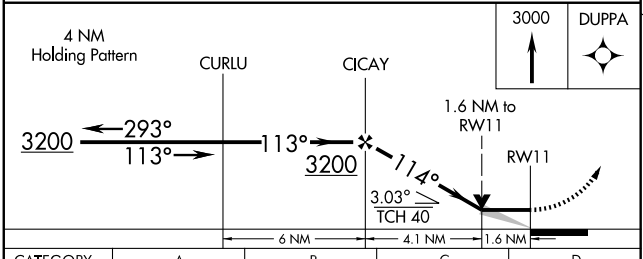
RNAV (GPS) RWY 11
TRACY MUNI (TKC)

NA
DME/DME RNP- 0.3 NA.
If local altimeter setting not received, use Marshall/Ryan altimeter setting and increase all MDAs 60 feet.
Procedure NA at night.

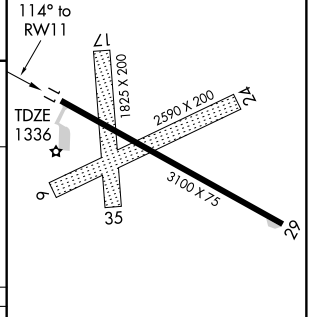
MISSED APPROACH: Climb to 3000 direct DUPPA and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
120.0	127.1 290.2	122.9 L





CATEGORY	A	B	C	D
LNAV MDA	1900-1	564 (600-1)	NA	
CIRCLING	1960-1	620 (700-1)	NA	



MIRL Rwy 11-29 L

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3100
294°	TDZE	1336
	Apt Elev	1340

RNAV (GPS) RWY 29

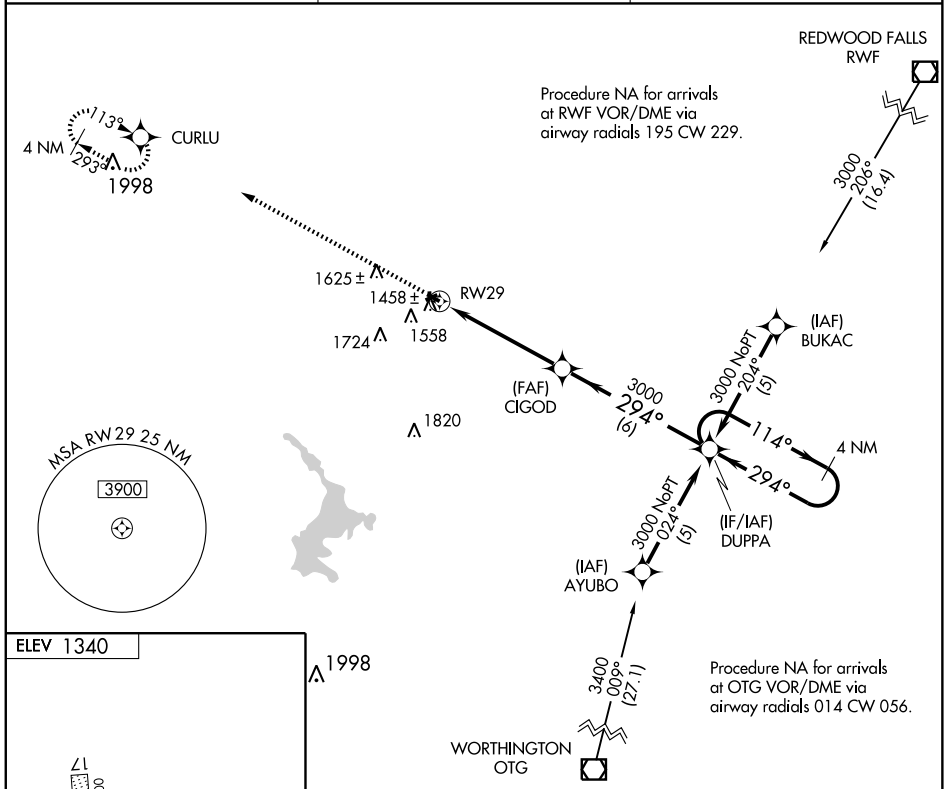
TRACY MUNI (TKC)

NA

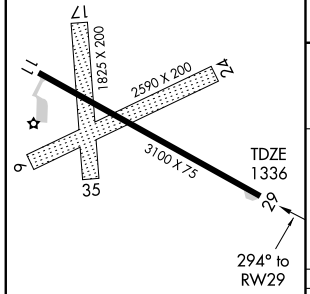
DME/DME RNP- 0.3 NA.
If local altimeter setting not received, use Marshall/Ryan altimeter setting and increase all MDAs 60 feet.
Procedure NA at night.

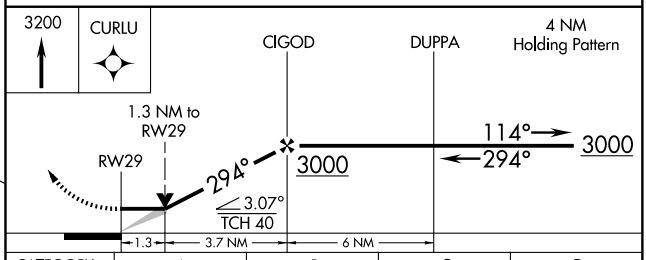
MISSED APPROACH: Climb to 3200 direct CURLU and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
120.0	127.1 290.2	122.9 (L)



ELEV 1340





CATEGORY	A	B	C	D
LNAV MDA	1780-1 444 (500-1)		NA	
CIRCLING	1920-1 580 (600-1)		NA	

MIRL Rwy 11-29 (L)

NC-1. 03 JUN 2010 to 01 JUL 2010

APP CRS		
241°	Rwy Idg	4400
	TDZE	1073
	Apt Elev	1080

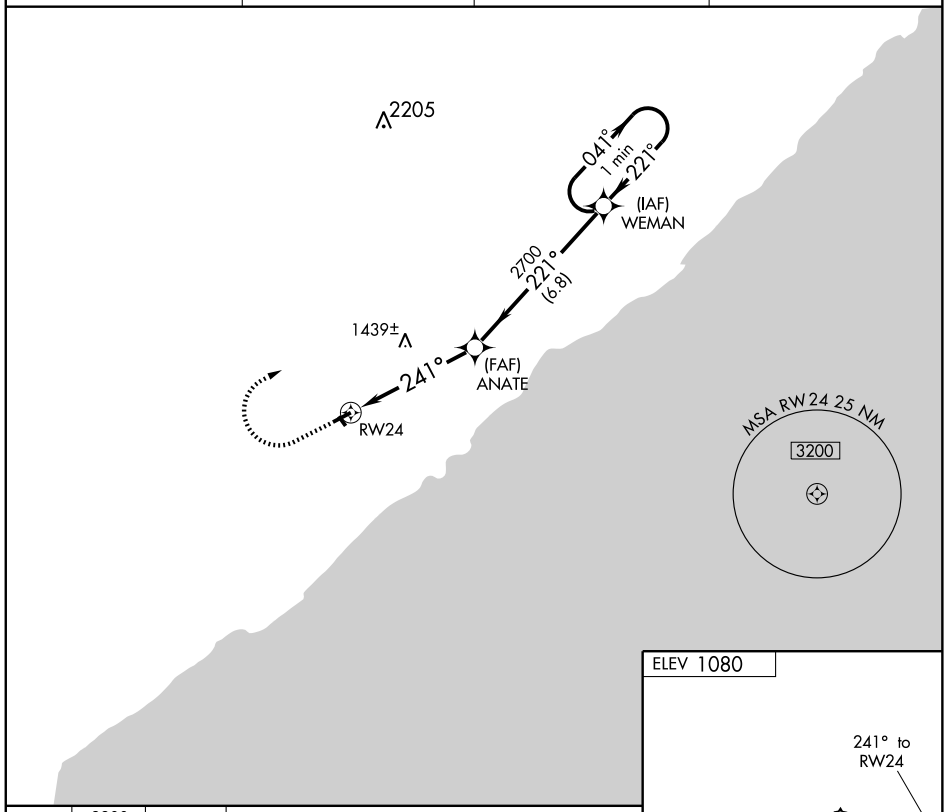
GPS RWY 24

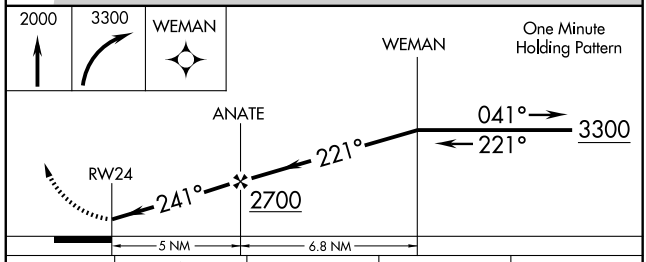
TWO HARBORS/RICHARD B HELGESON (TWM)

NA

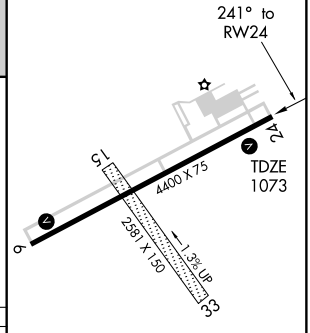
MISSED APPROACH: Climb to 2000 then climbing right turn to 3300 direct WEMAN WP and hold.

AWOS-3	DULUTH APP CON★	GCO	CTAF
119.325	125.45 255.9	121.725	122.9 L





CATEGORY	A	B	C	D
S-24	1580-1	507 (500-1)	NA	
CIRCLING	1660-1 580 (600-1)	1740-1 660 (700-1)	NA	



MIRL Rwy 6-24 L
REIL Rwys 6 and 24 L

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB TWM	APP CRS	Rwy Idg	4400
243	257°	TDZE	1073
		Apt Elev	1080

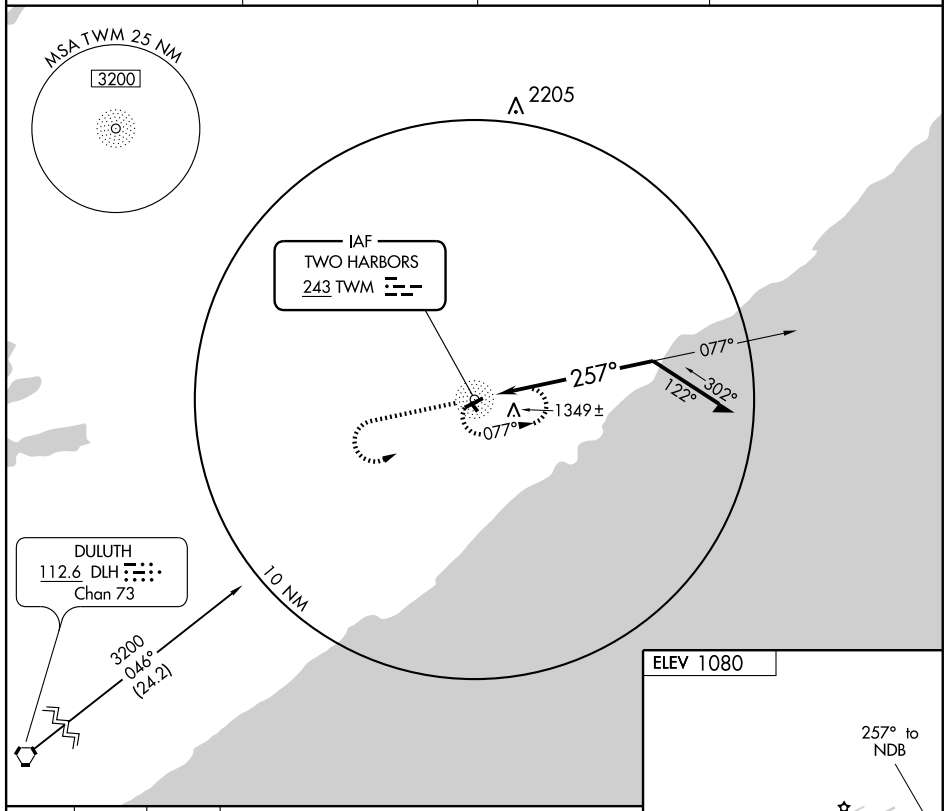
NDB RWY 24

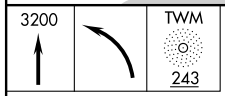
TWO HARBORS/ RICHARD B HELGESON (TWM)

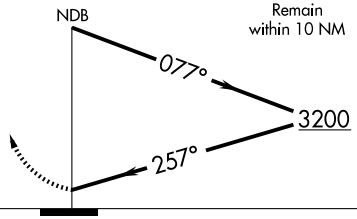
NA

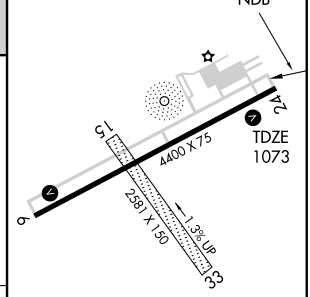
MISSED APPROACH: Climb to 3200 then left turn direct TWM NDB and hold.

AWOS-3	DULUTH APP CON ★	GCO	CTAF
119.325	125.45 255.9	121.725	122.9 (L)









CATEGORY	A	B	C	D
S-24	1700-1	627 (700-1)	NA	
CIRCLING	1700-1 620 (700-1)	1740-1 660 (700-1)	NA	

MIRL Rwy 6-24 (L)
REIL Rwys 6 and 24 (L)

NC-1, 03 JUN 2010 to 01 JUL 2010

WADENA, MINNESOTA

AL-9365 (FAA)

RNAV (GPS) RWY 34

WADENA MUNI (ADC)

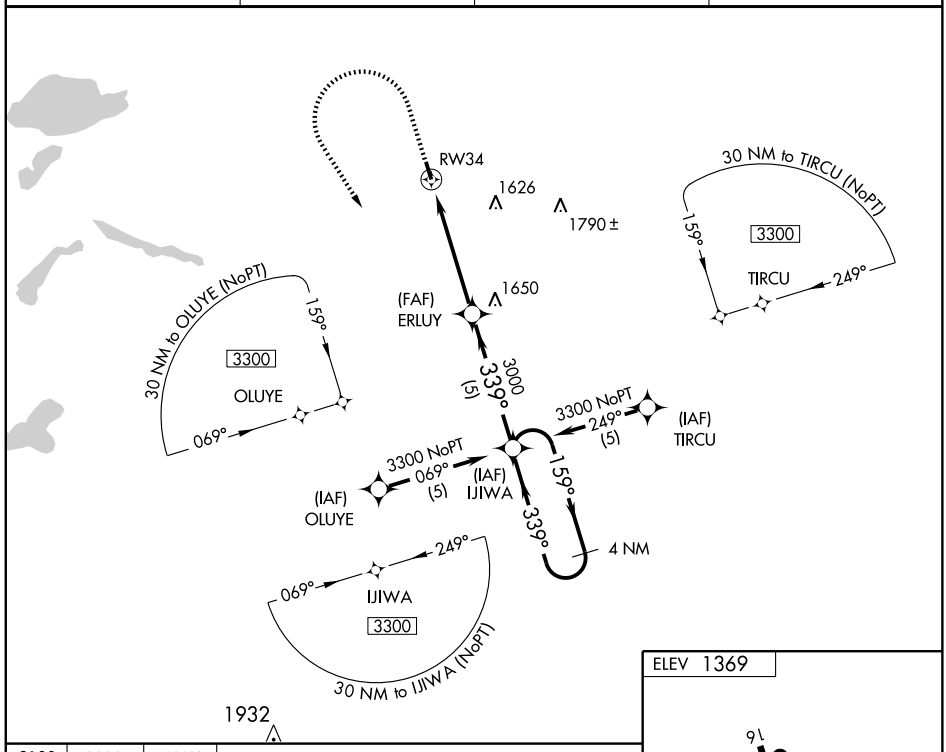
APP CRS	Rwy ldg	4005
339°	TDZE	1366
	Apt Elev	1369

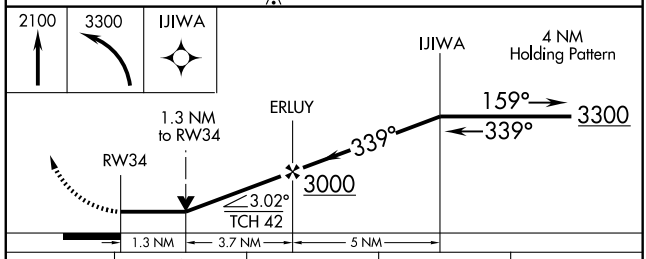
⚠NA

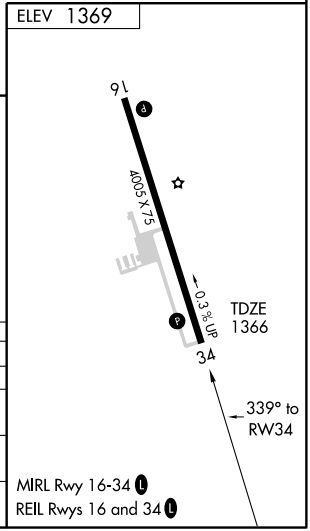
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 2100 then climbing left turn to 3300 direct IJIWA WP and hold.

AWOS-3	MINNEAPOLIS CENTER	GCO	UNICOM
128.325	126.1 269.2	121.725	122.8 (CTAF) L







CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	NA			
LNAV MDA	1820-1 454 (500-1)		1820-1¼ 454 (500-1¼)	1820-1½ 454 (500-1½)
CIRCLING	1820-1 451 (500-1)		1820-1½ 451 (500-1½)	1920-2 551 (600-2)

MIRL Rwy 16-34 L

REIL Rwys 16 and 34 L

NC-1. 03 JUN 2010 to 01 JUL 2010

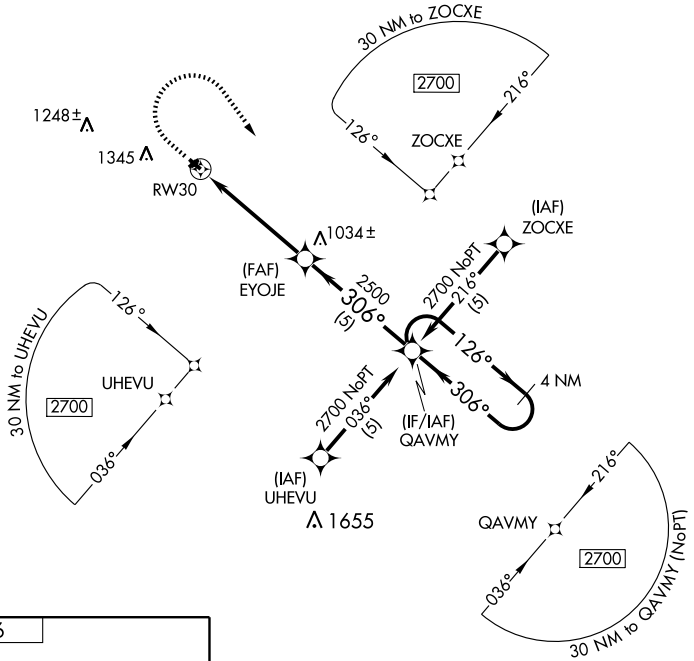
APP CRS	Rwy Idg	3205
306°	TDZE	885
	Apt Elev	886

RNAV (GPS) RWY 30
WARREN MUNI (D37)

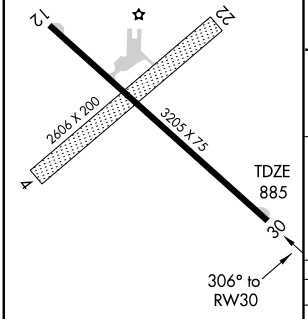
T NA — Use Crookston Muni-Kirkwood Field altimeter setting. GPS or RNP -0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 2000, then climbing right turn to 2700 direct QAVMY WP and hold.

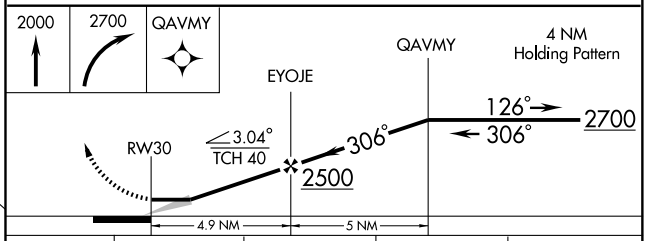
GRAND FORKS APP CON	UNICOM
118.1 318.1	**122.8** (CTAF)



ELEV 886



MIRL Rwy 12-30



CATEGORY	A	B	C	D
LNAV MDA	1480-1	595 (600-1)	NA	
CIRCLING	1480-1	594 (600-1)	NA	

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-SWE	APP CRS	Rwy Idg	5400
110.1	315°	TDZE	1074
Chan 38		Apt Elev	1074

ILS or LOC RWY 31

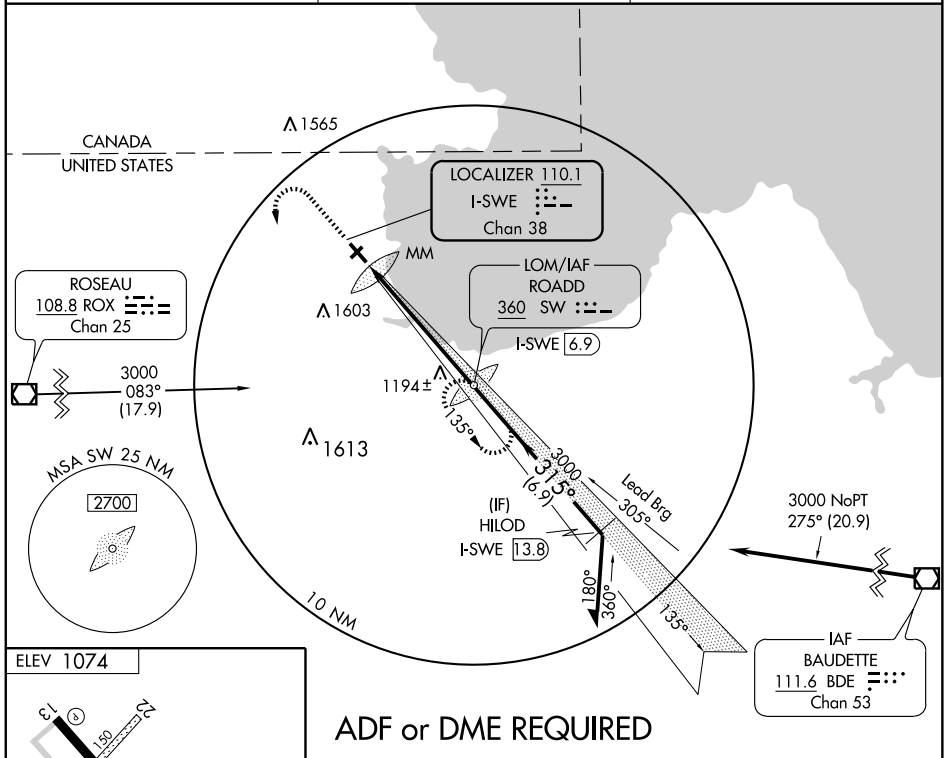
WARROAD INTL MEMORIAL (RRT)

NA

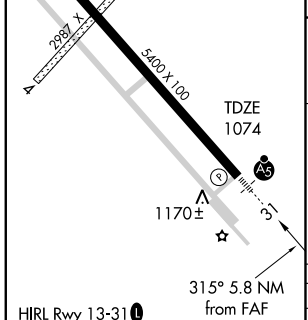
MALSR

MISSED APPROACH: Climb to 3000 then left turn direct ROADD LOM and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.925	134.75 251.1	123.05 (CTAF) L

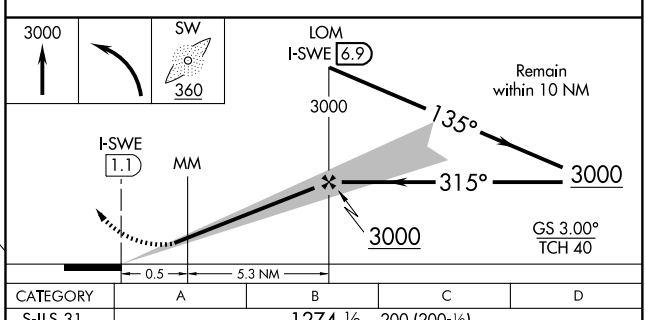


ADF or DME REQUIRED



HIRL Rwy 13-31 L
REIL Rwy 13 L

FAF to MAP 5.8 NM					
Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56



CATEGORY	A	B	C	D
S-ILS 31	1274-½ 200 (200-½)			
S-LOC 31	1460-½ 386 (400-½)			1460-¾ 386 (400-¾)
CIRCLING	1500-1 426 (500-1)	1540-1 466 (500-1)	1540-1½ 466 (500-1½)	1640-2 566 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

LOM SW	APP CRS	Rwy Idg	5400
360	315°	TDZE	1074
		Apt Elev	1074

NDB RWY 31

WARROAD INTL MEMORIAL (RRT)

When local altimeter setting not received, use Roseau altimeter setting and increase all MDAs 40 feet and increase S-31 Cat C visibility ¼ mile.

MALSR

MISSED APPROACH: Climb to 3000 then left turn direct ROADD LOM and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.925	134.75 251.1	123.05 (CTAF) L

CANADA
UNITED STATES

1565

ROSEAU
108.8 ROX
Chan 25

3000
083°
(17.9)

MSA SW 25 NM
2700

1603
1219±
1613

LOM/IAF
ROADD
360 SW

135°
315°
090°
270°
3000
315° (6.9)
R-275
135°
(IF)
CARUV INT
3000 NoPT
275°
(21)

IAF
BAUDETTE
111.6 BDE
Chan 53

10 NM

ELEV 1074

13
22
150
2987 X
5400 X 100
TDZE
1074
1170±
31
315° 5.8 NM
from FAF

HIRL Rwy 13-31 L
REIL Rwy 13 L

FAF to MAP 5.8 NM					
Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

3000 | SW 360

LOM
Remain within 10 NM
135°
315°
3000
3000
3.07°
TCH 35
VGSI and descent angles not coincident.
5.8 NM

CATEGORY	A	B	C	D
S-31	1540-¾ 466 (500-¾)			1540-1¼ 466 (500-1¼)
CIRCLING	1540-1 466 (500-1)		1540-1½ 466 (500-1½)	1640-2 566 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

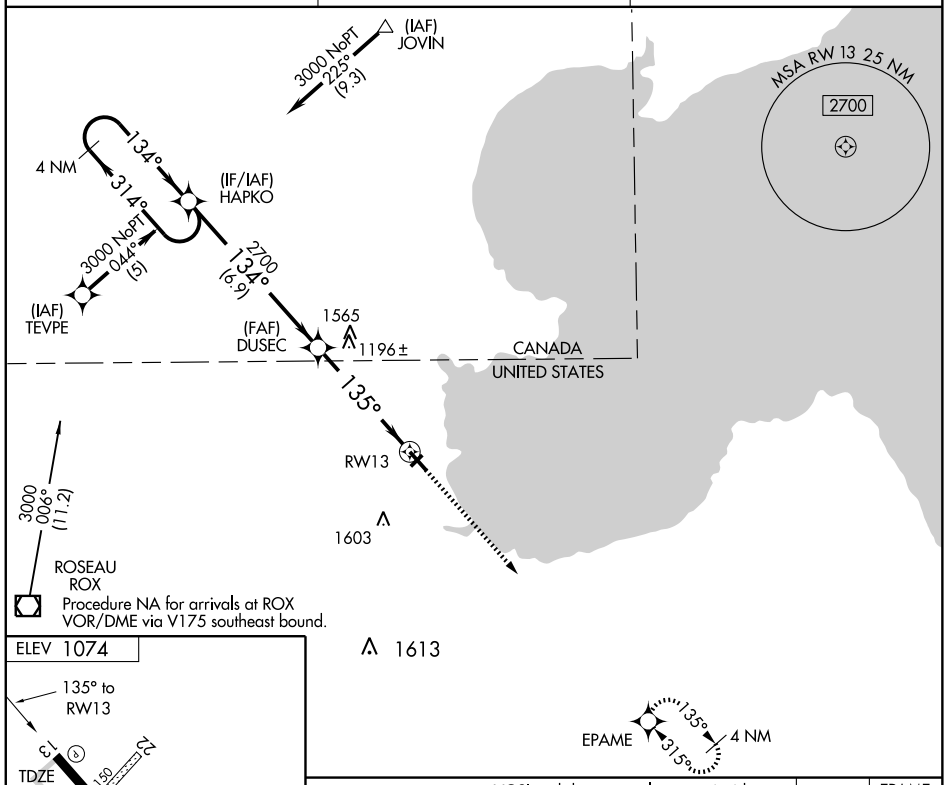
APP CRS	Rwy Idg	5400
135°	TDZE	1073
	Apt Elev	1074

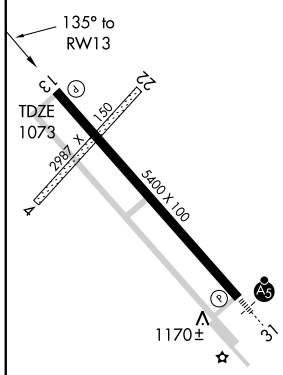
RNAV (GPS) RWY 13
WARROAD INTL MEMORIAL (RRT)

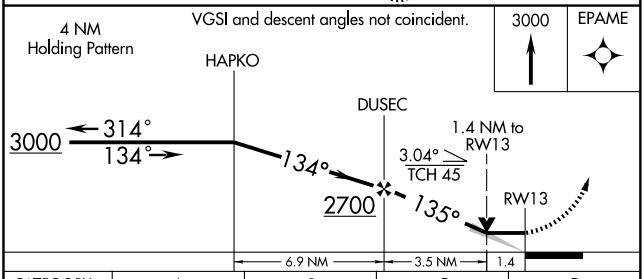
DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Roseau altimeter setting and increase all MDAs 40 feet, and LNAV Cat C and D visibilities ¼ mile. VDP NA when using Roseau altimeter setting.

MISSED APPROACH: Climb to 3000 direct EPAME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.925	134.75 251.1	123.05 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	1560-1	487 (500-1)	1560-1¼ 487 (500-1¼)	1560-1½ 487 (500-1½)
CIRCLING	1560-1	486 (500-1)	1560-1½ 486 (500-1½)	1640-2 566 (600-2)

HIRL Rwy 13-31 L
REIL Rwy 13 L

NC-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 42706 W31A	APP CRS 315°	Rwy Idg 5400 TDZE 1074 Apt Elev 1074

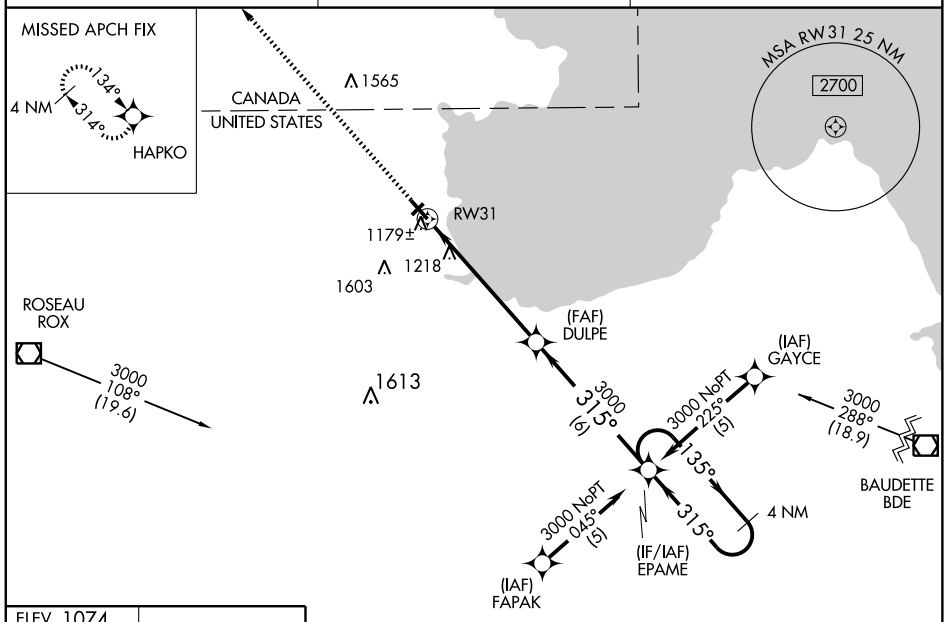
RNAV (GPS) RWY 31
WARROAD INTL MEMORIAL (RRT)

Baro-VNAV NA when using Roseau altimeter setting. DME/DME RNP-0.3 NA. When local altimeter setting not received, use Roseau altimeter setting and increase all DAs 36 feet and all MDAs 40 feet and increase, LNAV/VNAV all Cats and LNAV Cat D visibilites ¼ mile. VDP NA when using Roseau altimeter setting. For inoperative MALSR when using Roseau altimeter setting increase LPV all Cats visibility to 1 mile. For uncompensated Baro-VNAV systems, LNAV-VNAV NA below -17°C (2°F) or above 47°C (116°F).

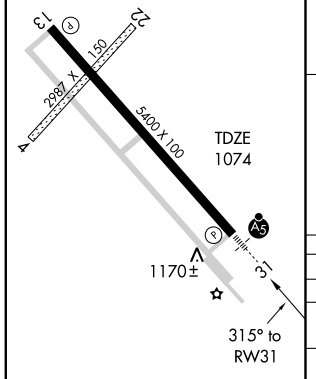
MALSR

MISSED APPROACH: Climb to 3000 direct HAPKO and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
119.925	134.75 251.1	123.05 (CTAF) L

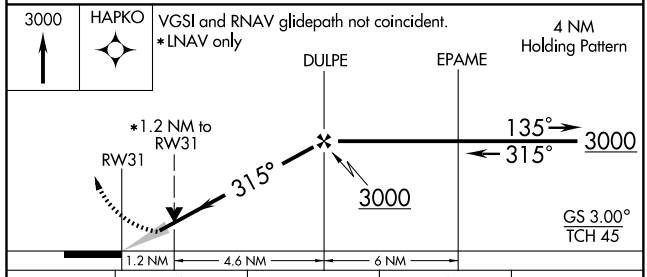


ELEV 1074



HIRL Rwy 13-31 L
REIL Rwy 13 L

Procedure NA for arrivals at ROX VOR/DME via V175 northbound and arrivals at BDE VOR/DME via V217 southeast bound.



CATEGORY	A	B	C	D
LPV DA	1324-½ 250 (300-½)			
LNAV/VNAV DA	1449-¾ 375 (400-¾)			
LNAV MDA	1480-½ 406 (500-½)		1480-¾ 406 (500-¾)	1480-1 406 (500-1)
CIRCLING	1500-1 426 (500-1)	1540-1 466 (500-1)	1540-1½ 466 (500-1½)	1640-2 566 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB ACQ	APP CRS	Rwy Idg	3398
371	160°	TDZE	1126
		Apt Elev	1126

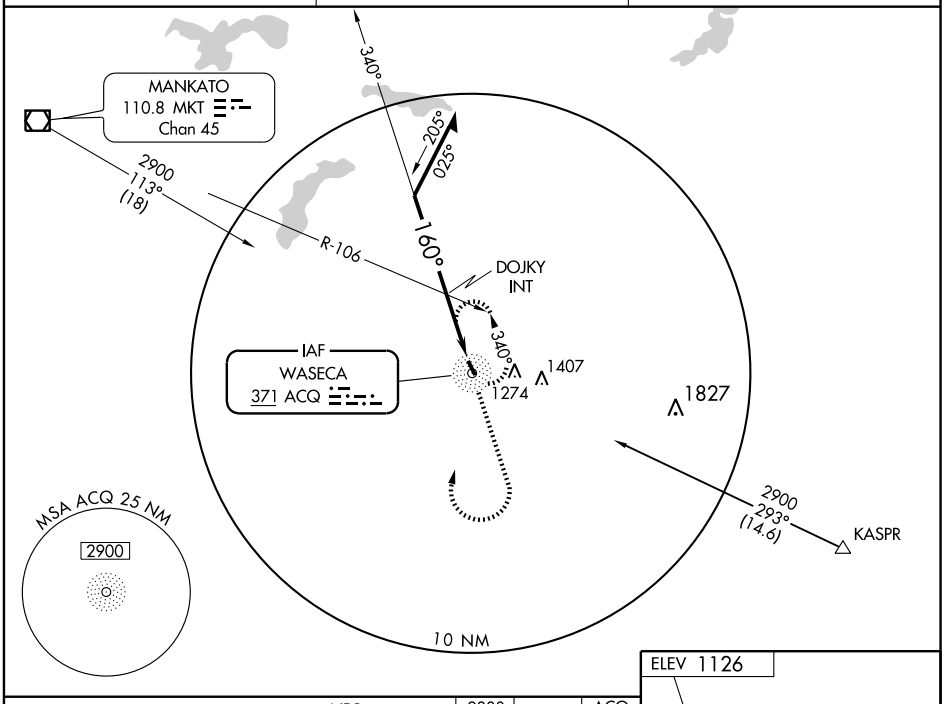
NDB RWY 15
WASECA MUNI (ACQ)

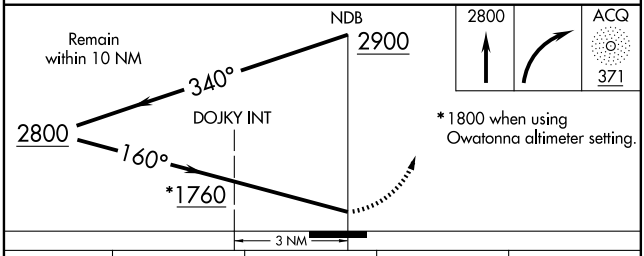
When local altimeter setting not received, use Owatonna altimeter setting and increase all MDA 40 feet and increase all Cat C visibilities ¼ mile.

NA

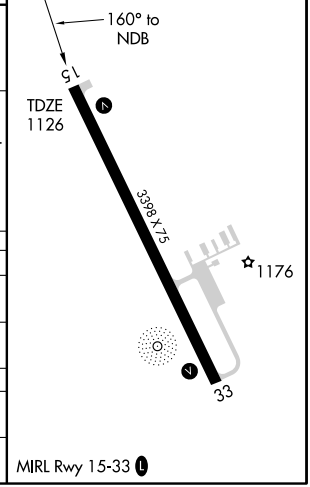
MISSED APPROACH: Climb to 2800 then right turn direct ACQ NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
371	132.35 307.3	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-15	1760-1	634 (700-1)	1760-1¾ 634 (700-1¾)	NA
CIRCLING	1760-1	634 (700-1)	1760-1¾ 634 (700-1¾)	NA
DOJKY FIX MINIMUMS				
S-15	1720-1	594 (600-1)	1720-1½ 594 (600-1½)	NA
CIRCLING	1720-1	594 (600-1)	1720-1½ 594 (600-1½)	NA



NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	3398
152°	TDZE	1126
	Apt Elev	1126

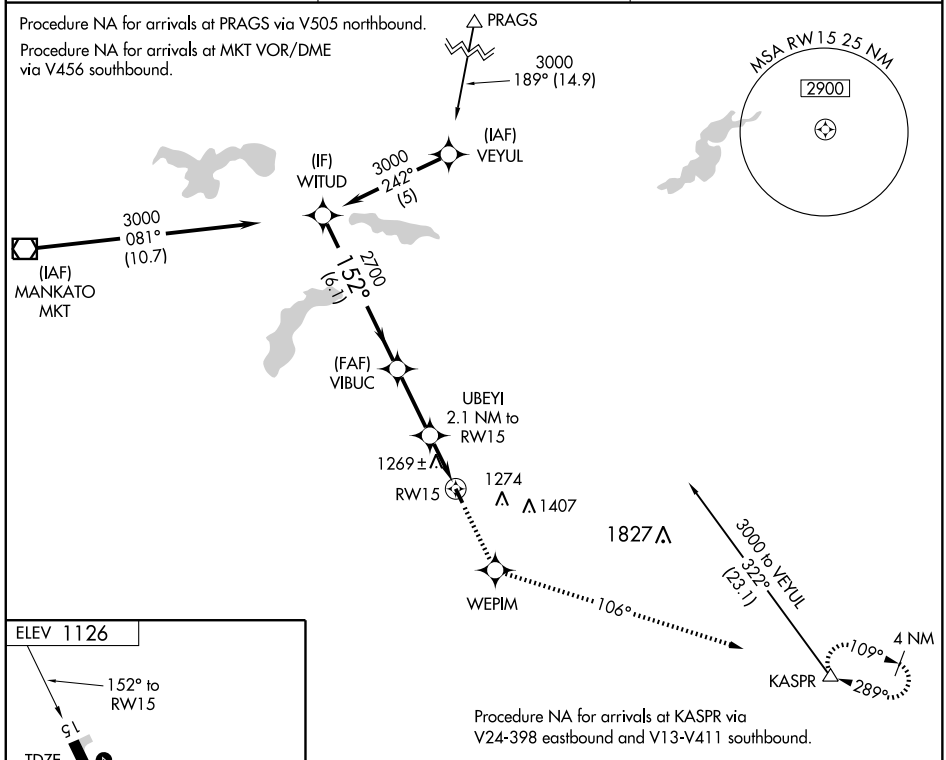
RNAV (GPS) RWY 15
WASECA MUNI (ACQ)

DME/DME RNP-0.3 NA.
VDP NA when using Owatonna altimeter setting.
When local altimeter setting not received, use Owatonna altimeter setting and increase all MDA 40 feet and LNAV Cat. C visibility ¼ mile.

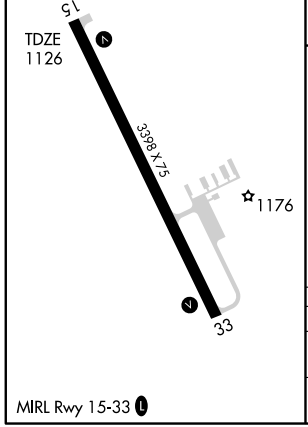
MISSED APPROACH: Climb to 3000 direct WEPIM and via 106° track to KASPR and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
371	132.35 307.3	122.8 (CTAF) L

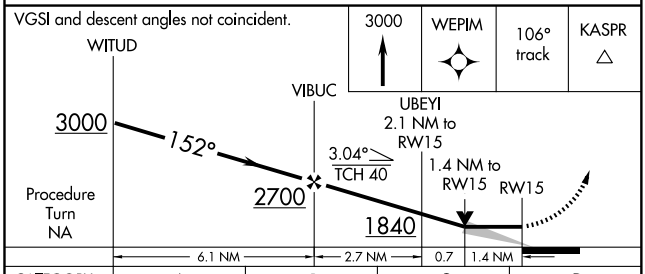
Procedure NA for arrivals at PRAGS via V505 northbound.
Procedure NA for arrivals at MKT VOR/DME via V456 southbound.



Procedure NA for arrivals at KASPR via V24-398 eastbound and V13-V411 southbound.



MIRL Rwy 15-33 L



CATEGORY	A	B	C	D
LNAV MDA	1520-1 394 (400-1)			NA
CIRCLING	1580-1 454 (500-1)	1640-1 514 (600-1)	1660-1½ 534 (600-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

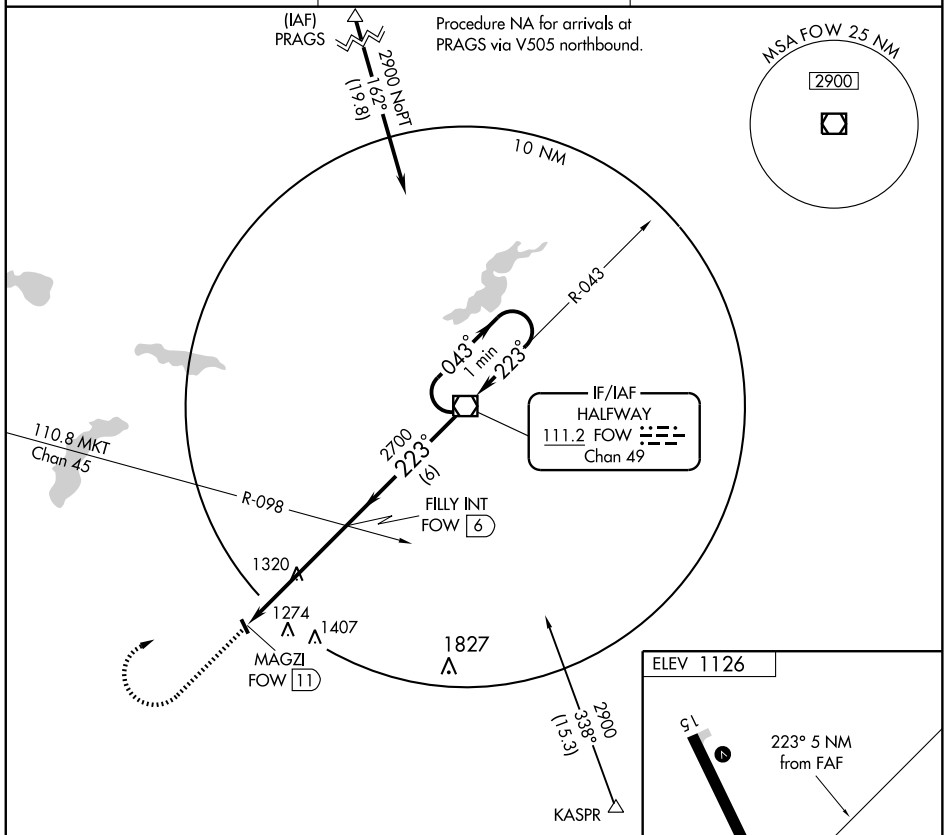
VOR/DME FOW	APP CRS	Rwy Idg	N/A
111.2	223°	TDZE	N/A
Chan 49		Apt Elev	1126

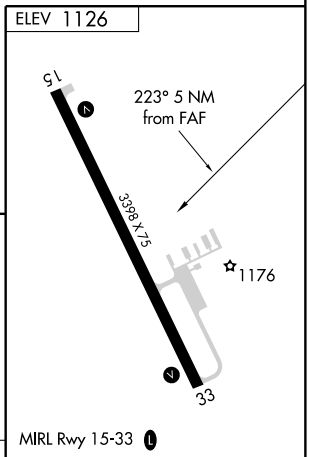
VOR-A
WASECA MUNI (ACQ)

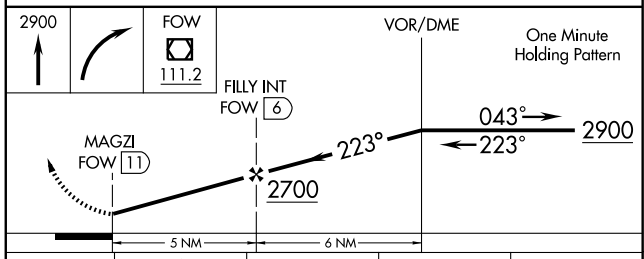
T NA When local altimeter setting not received, use Owatonna altimeter setting and increase all MDA 40 feet.

MISSED APPROACH: Climb to 2900 then right turn direct FOW VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
371	132.35 307.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	1620-1 494 (500-1)	1640-1 514 (600-1)	1660-1½ 534 (600-1½)	NA

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

NC-1. 03 JUN 2010 to 01 JUL 2010

NDB ETH	APP CRS	Rwy Idg	3300
326	327°	TDZE	1022
		Apt Elev	1025

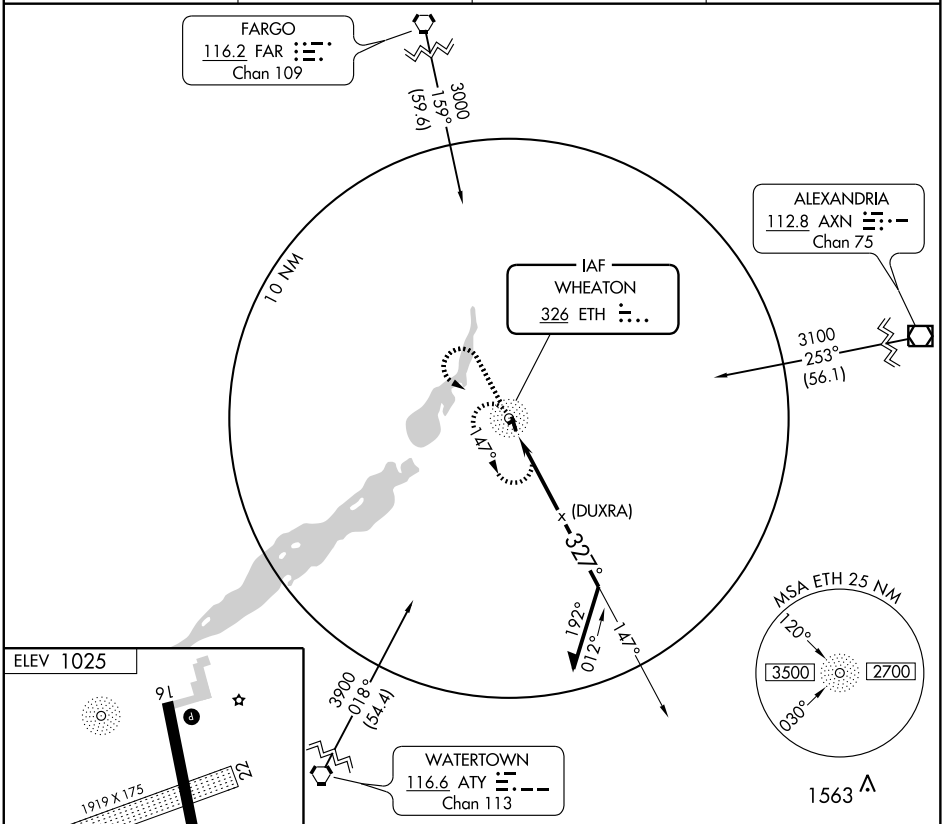
NDB or GPS RWY 34

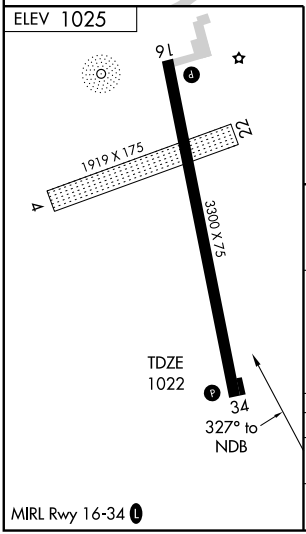
WHEATON MUNI (ETH)

NA

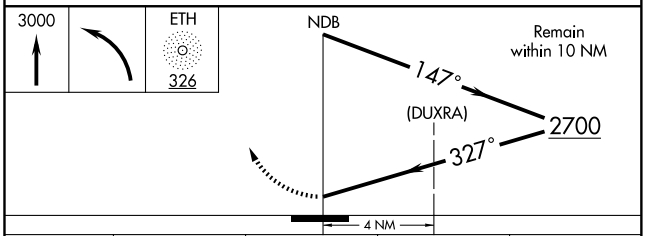
MISSED APPROACH: Climb to 3000 then left turn direct ETH NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	PRINCETON RADIO	UNICOM
326	126.1 269.2	122.25	122.8 (CTAF)





MIRL Rwy 16-34 (L)



CATEGORY	A	B	C	D
S-34	1540-1 518 (600-1)		1540-1½ 518 (600-1½)	NA
CIRCLING	1540-1 515 (600-1)		1540-1½ 515 (600-1½)	NA

NC-1, 03 JUN 2010 to 01 JUL 2010

LOC I-BDH	APP CRS	Rwy Idg	5500
109.5	126°	TDZE	1124
		Apt Elev	1126

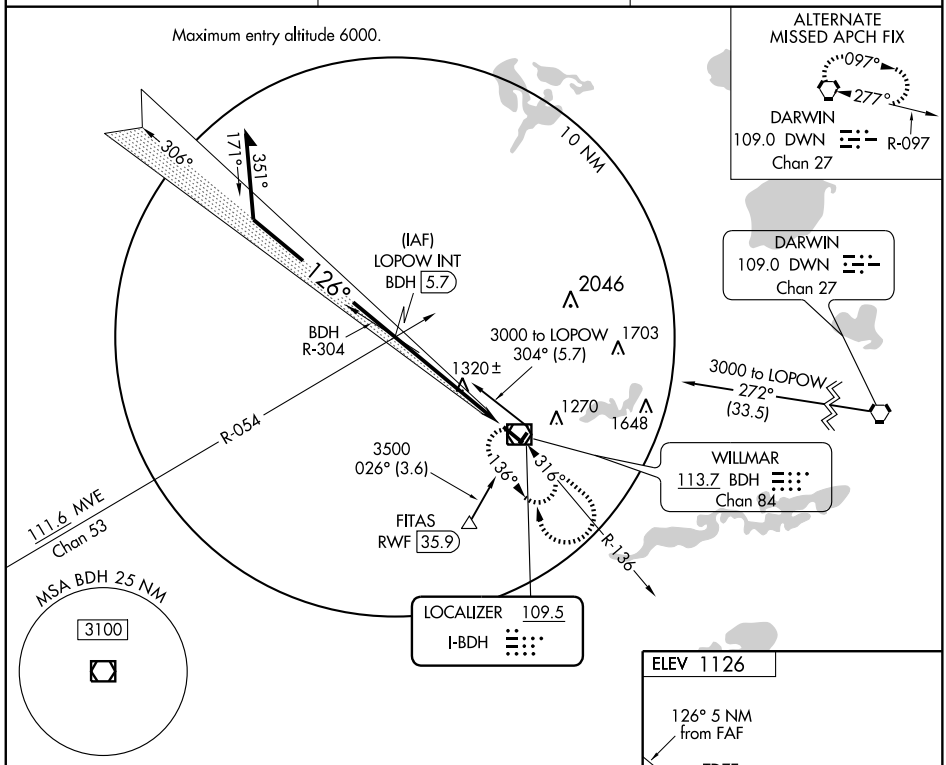
ILS or LOC RWY 13

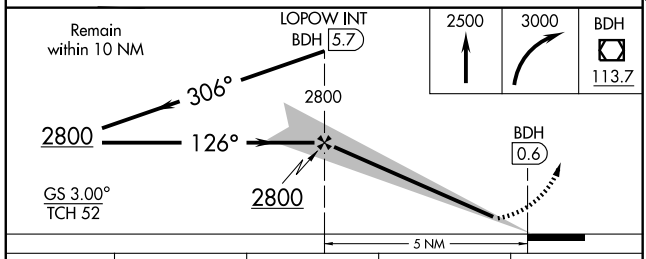
WILLMAR MUNI-JOHN L RICE FIELD (BDH)

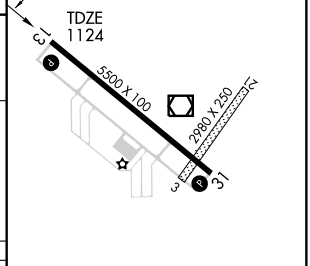
T
A NA — If local altimeter setting not received, use Olivia RgnI altimeter setting and increase all DAs 55 feet and all MDAs 60 feet.

MISSED APPROACH: Climb to 2500 then climbing right turn to 3000 direct BDH VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
113.7	125.5 323.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 13	1324-¾ 200 (200-¾)			
S-LOC 13	1620-1 496 (500-1)		1620-1¼ 496 (500-1¼)	1620-1½ 496 (500-1½)
CIRCLING	1620-1 494 (500-1)		1620-1½ 494 (500-1½)	1680-2 554 (600-2)

HIRL Rwy 13-31 L
REIL Rwy 31 L

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

NC-1. 03 JUN 2010 to 01 JUL 2010

WAAS	APP CRS	Rwy Idg	5500
CH 93902	126°	TDZE	1124
W13A		Apt Elev	1126

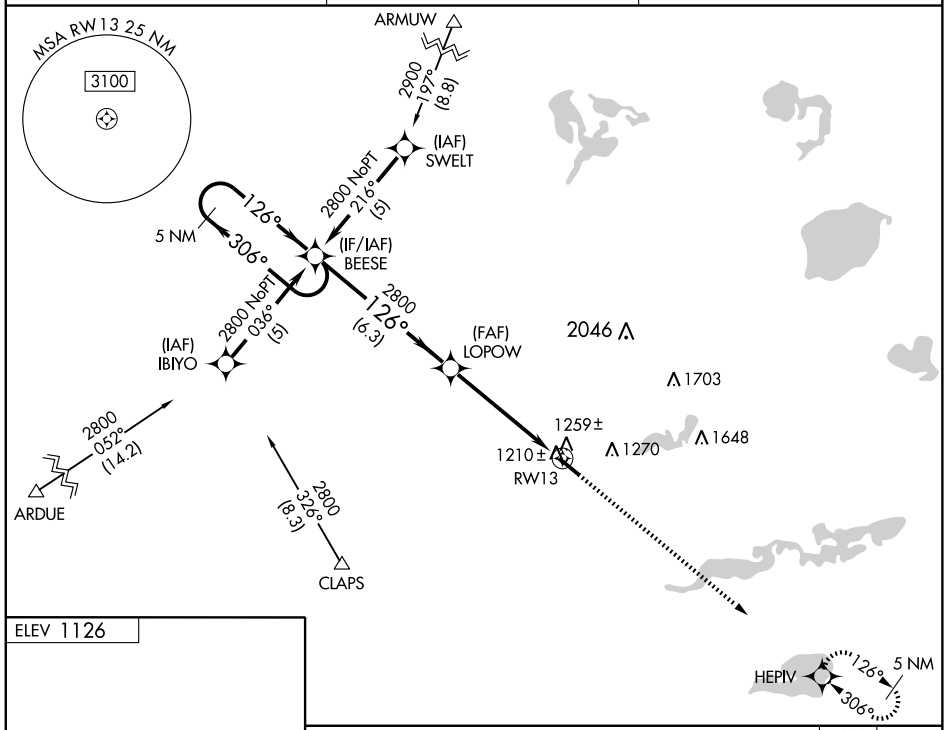
RNAV (GPS) RWY 13

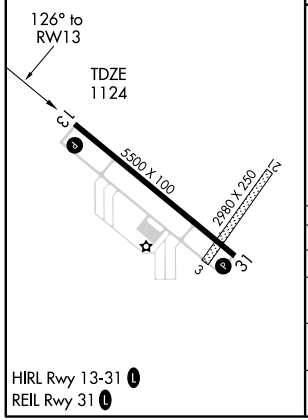
WILLMAR MUNI-JOHN L RICE FIELD (BDH)

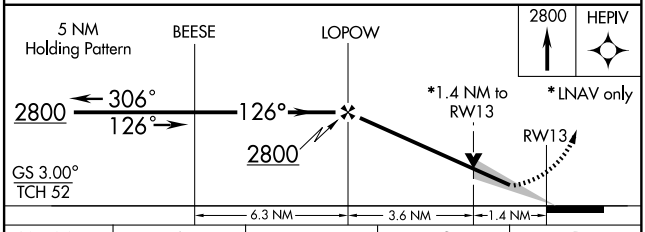
If local altimeter setting not received, use Olivia Rgnl altimeter setting and increase all DAs/MDAs 60 feet. DME/DME RNP -0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (116°F).
Baro-VNAV and VDP NA when using Olivia Rgnl altimeter setting.

MISSED APPROACH: Climb to 2800 direct HEPIV and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
113.7	125.5 323.1	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	1387-1 263 (300-1)			
LNAV/VNAV DA	1480-1¼ 356 (400-1¼)			
LNAV MDA	1620-1 496 (500-1)		1620-1¼ 496 (500-1¼)	1620-1½ 496 (500-1½)
CIRCLING	1620-1 494 (500-1)		1620-1½ 494 (500-1½)	1680-2 554 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	5500
306°	TDZE	1126
	Apt Elev	1126

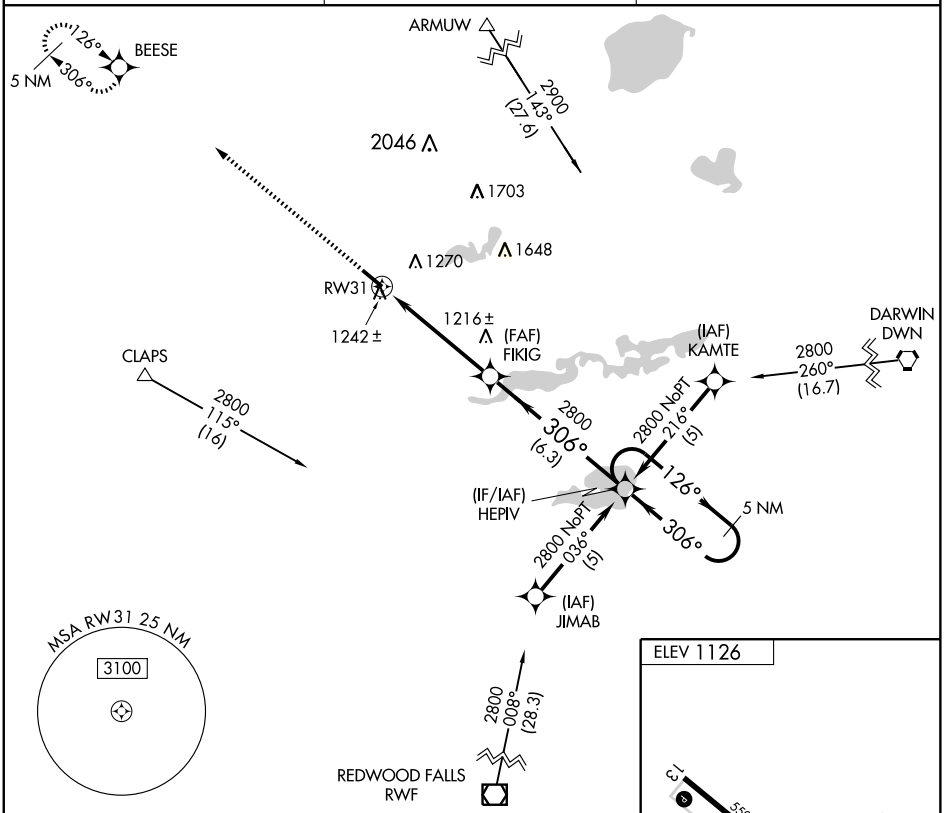
RNAV (GPS) RWY 31

WILLMAR MUNI-JOHN L RICE FIELD (BDH)

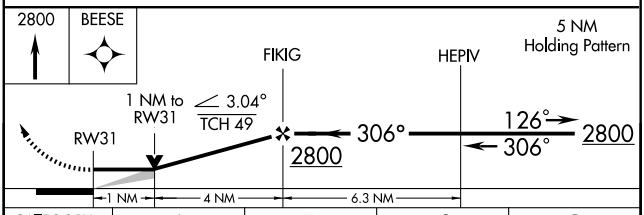
If local altimeter setting not received, use Olivia Rgnl altimeter setting and increase all MDAs 60 feet.
VDP NA with Olivia Rgnl altimeter setting.
DME/DME RNP -0.3 NA.

MISSED APPROACH: Climb to 2800 direct BEESE and hold.

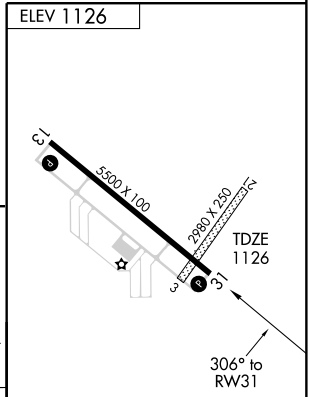
AWOS-3	MINNEAPOLIS CENTER	UNICOM
113.7	125.5 323.1	122.8 (CTAF) L



Procedure NA for arrival at RWF VOR/DME on airway radials 054 CW 060.



CATEGORY	A	B	C	D
LNAV MDA	1500-1 374 (400-1)			1500-1¼ 374 (400-1¼)
CIRCLING	1520-1 394 (400-1)	1580-1 454 (500-1)	1580-1½ 454 (500-1½)	1680-2 554 (600-2)



HIRL Rwy 13-31 L
REIL Rwy 31 L

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME BDH	APP CRS	Rwy Idg	5500
113.7	119°	TDZE	1124
Chan 84		Apt Elev	1126

VOR RWY 13

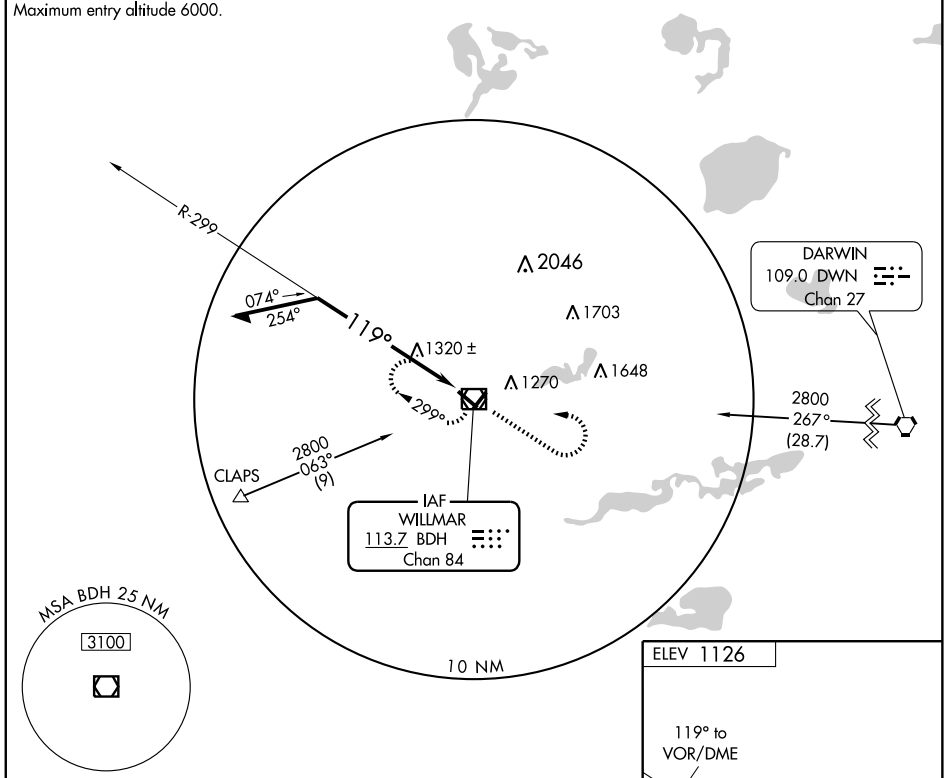
WILLMAR MUNI-JOHN L RICE FIELD (BDH)

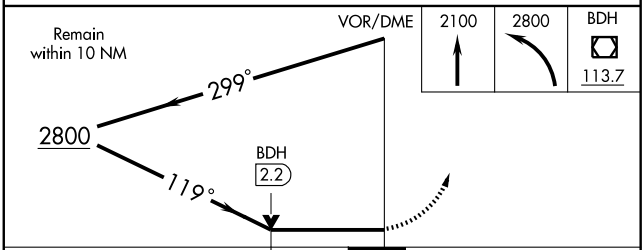
If local altimeter setting not received, use Olivia Rgnl altimeter setting and increase all MDAs 60 feet.
VDP NA with Olivia Rgnl altimeter setting.

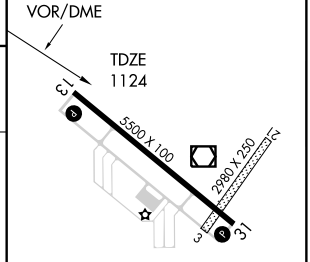
MISSED APPROACH: Climb to 2100, then climbing left turn to 2800 direct BDH VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
113.7	125.5 323.1	122.8 (CTAF) L

Maximum entry altitude 6000.







CATEGORY	A	B	C	D
S-13	1680-1	556 (600-1)	1680-1½ 556 (600-1½)	1680-1¾ 556 (600-1¾)
CIRCLING	1680-1	554 (600-1)	1680-1½ 554 (600-1½)	1680-2 554 (600-2)

HIRL Rwy 13-31 L
REIL Rwy 31 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME BDH	APP CRS	Rwy Idg	5500
113.7	316°	TDZE	1126
Chan 84		Apt Elev	1126

VOR RWY 31

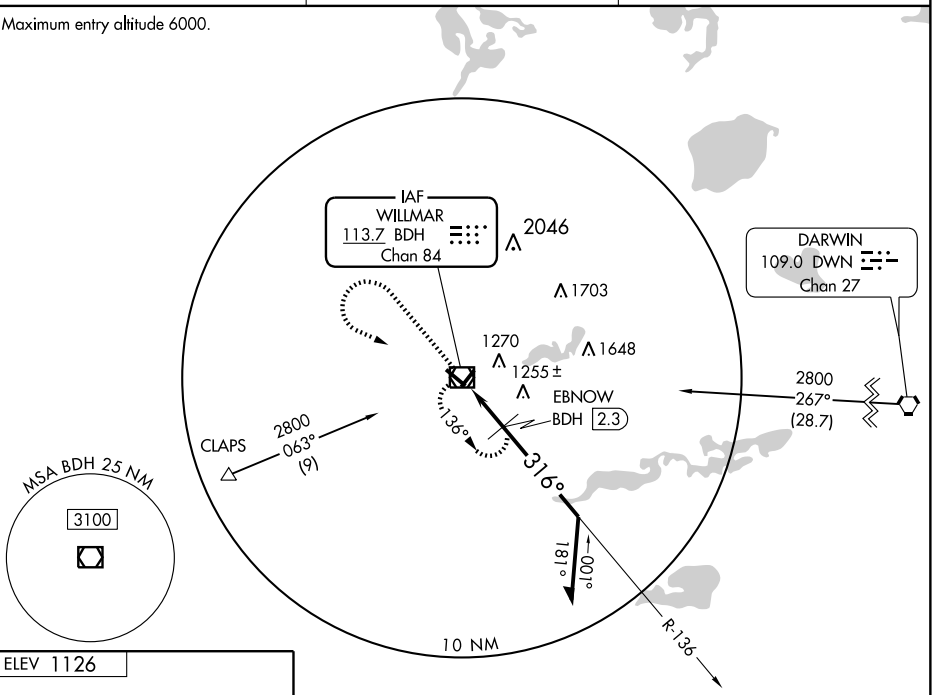
WILLMAR MUNI-JOHN L RICE FIELD (BDH)

If local altimeter setting not received, use Olivia Rgnl altimeter setting and increase all MDAs 60 feet.
VDP NA with Olivia Rgnl altimeter setting.

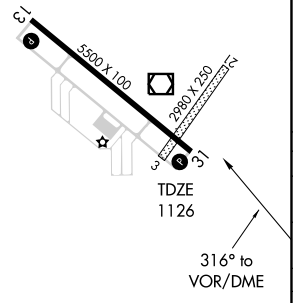
MISSED APPROACH: Climb to 2000, then climbing left turn to 2800 direct BDH VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
113.7	125.5 323.1	122.8 (CTAF) L

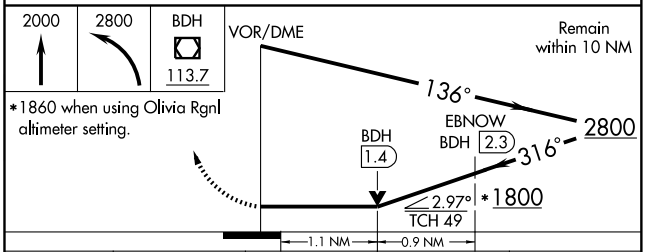
Maximum entry altitude 6000.



ELEV 1126



HIRL Rwy 13-31 L
REIL Rwy 31 L



CATEGORY	A	B	C	D
S-31	1800-1	674 (700-1)	1800-2 674 (700-2)	1800-2¼ 674 (700-2¼)
CIRCLING	1800-1	674 (700-1)	1800-2 674 (700-2)	1800-2¼ 674 (700-2¼)
EBNOW FIX MINIMUMS				
S-31	1520-1	394 (400-1)		1520-1¼ 394 (400-1¼)
CIRCLING	1520-1 394 (400-1)	1580-1 454 (500-1)	1580-1½ 454 (500-1½)	1680-2 554 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

NDB MWM 203	APP CRS 177°	Rwy Idg 3599 TDZE 1410 Apt Elev 1410

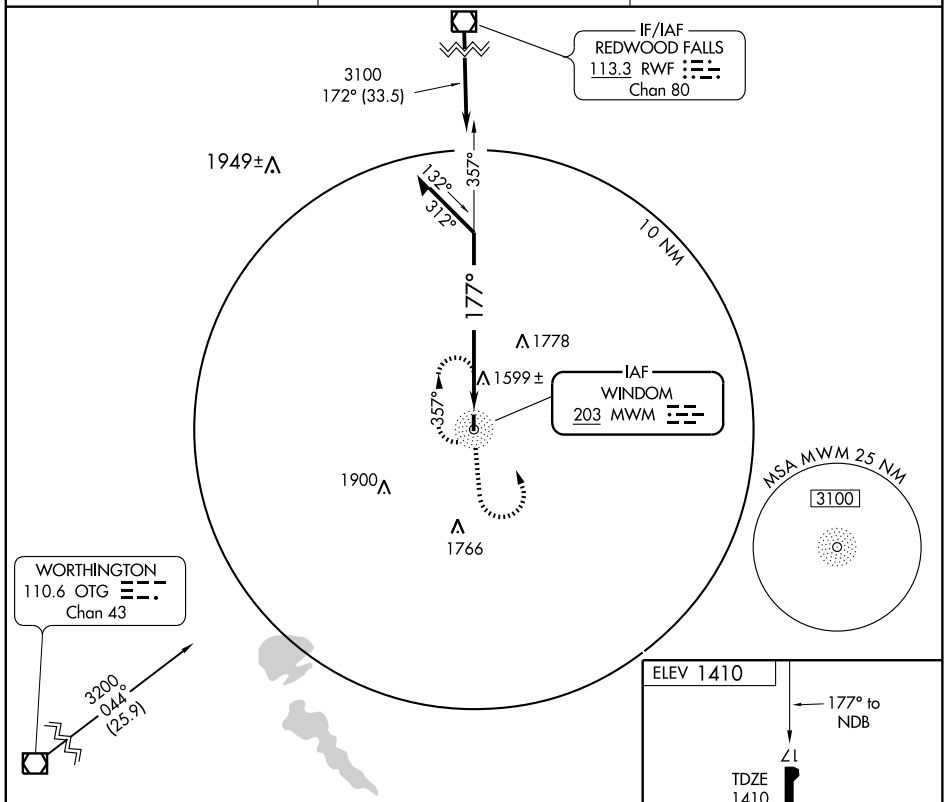
NDB RWY 17

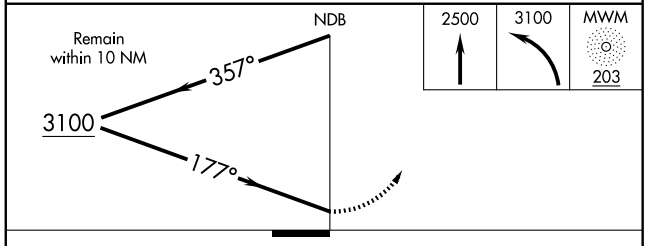
WINDOM MUNI (MWM)

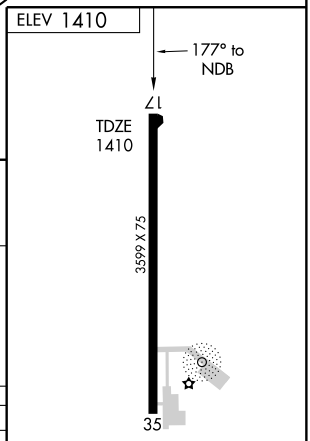
⚠ Circling not authorized at night to Rwy 35.

MISSED APPROACH: Climb to 2500 then climbing left turn to 3100 direct MWM NDB and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
118.525	127.1 290.2	122.9 (L)







MIRL Rwy 17-35 (L)
REIL Rwys 17 and 35 (L)

CATEGORY	A	B	C	D
S-17	2180-1 770 (800-1)	2180-1¼ 770 (800-1¼)	2180-2¼ 770 (800-2¼)	NA
CIRCLING	2180-1 770 (800-1)	2180-1¼ 770 (800-1¼)	2180-2¼ 770 (800-2¼)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

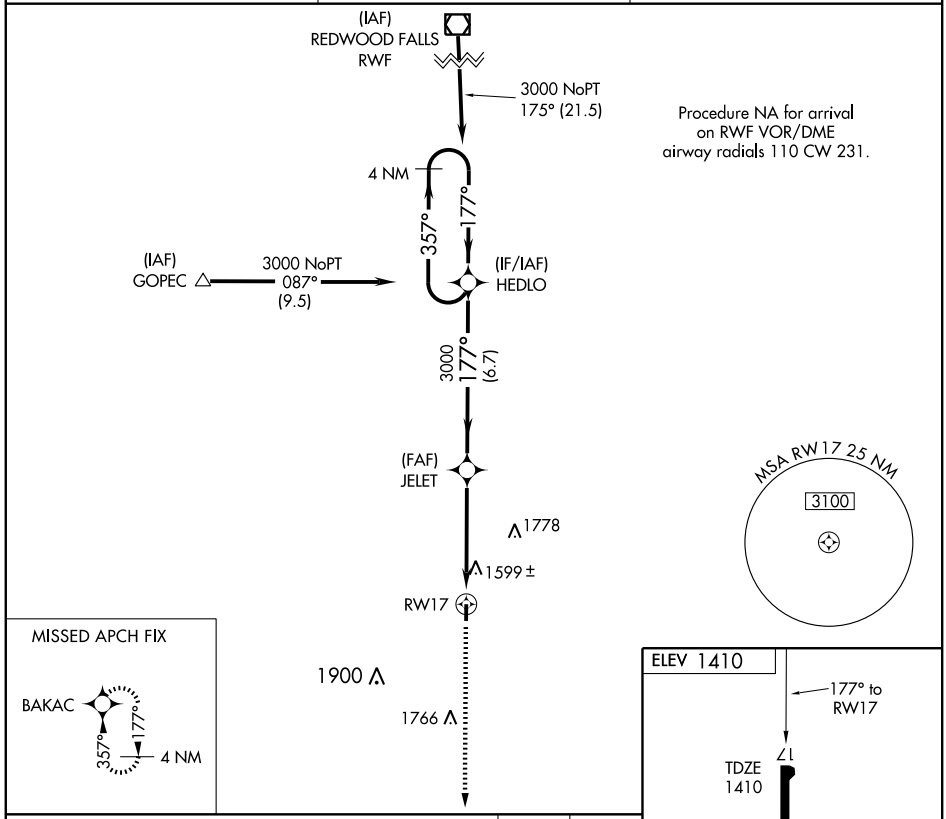
APP CRS	Rwy Idg	3599
177°	TDZE	1410
	Apt Elev	1410

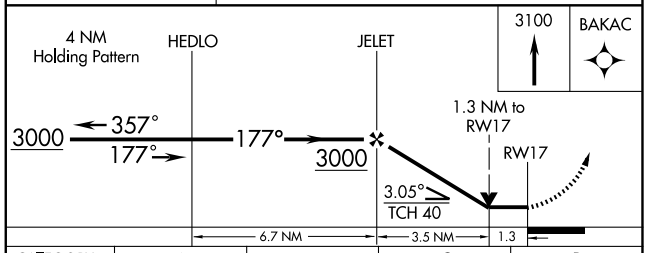
RNAV (GPS) RWY 17
WINDOM MUNI (MWM)

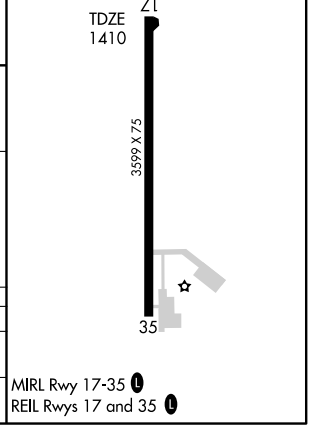
NA — GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. Circling not authorized at night to Rwy 35.

MISSED APPROACH: Climb to 3100 direct BAKAC and hold.

AWOS-3	MINNEAPOLIS CENTER	CTAF
118.525	127.1 290.2	122.9 L







CATEGORY	A	B	C	D
LNAV MDA	1860-1	450 (500-1)	1860-1¼ 450 (500-1¼)	NA
CIRCLING	1900-1	490 (500-1)	1900-1½ 490 (500-1½)	NA

MIRL Rwy 17-35 L
REIL Rwys 17 and 35 L

NC-1. 03 JUN 2010 to 01 JUL 2010

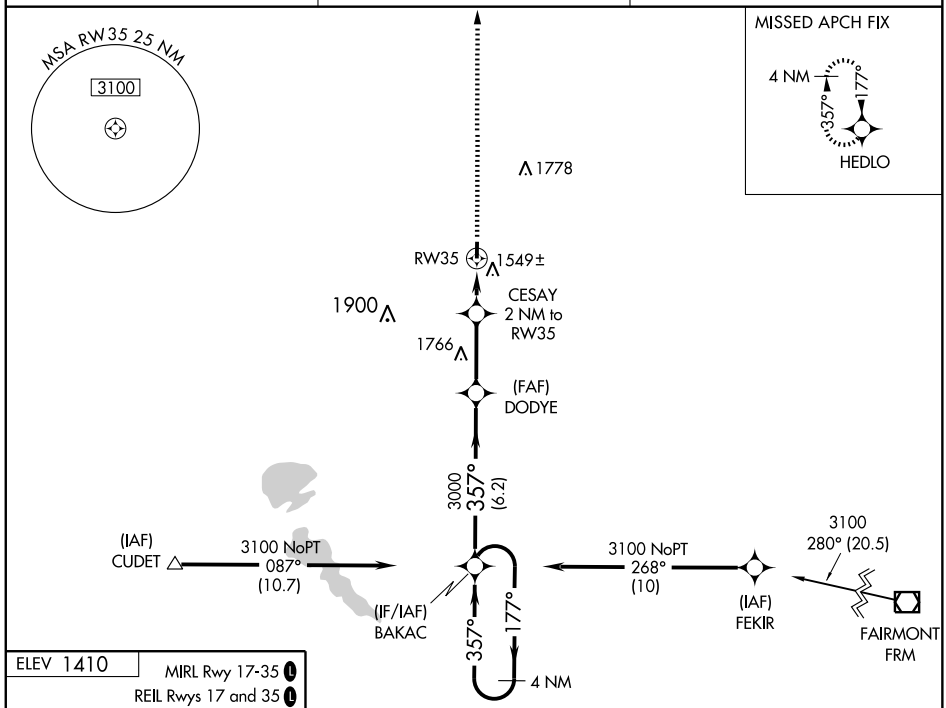
APP CRS		
357°	Rwy Idg	3599
	TDZE	1410
	Apt Elev	1410

RNAV (GPS) RWY 35
WINDOM MUNI (MWM)

NA — GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. Procedure not authorized at night.

MISSED APPROACH: Climb to 3000 direct HEDLO WP and hold.

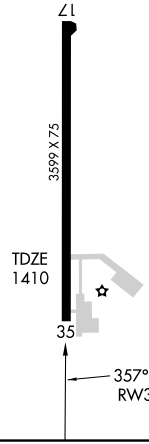
AWOS-3	MINNEAPOLIS CENTER	CTAF
118.525	127.1 290.2	122.9 L



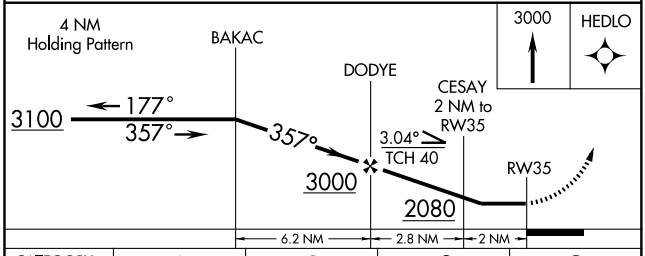
ELEV 1410

MIRL Rwy 17-35 L

REIL Rwys 17 and 35 L



Procedure NA for arrival on FRM VOR/DME airway radials 217 CW 336 and arrivals at CUDET via V250 southwestbound.



CATEGORY	A	B	C	D
LNAV MDA	1800-1 390 (400-1)			NA
CIRCLING	1900-1 490 (500-1)		1900-1½ 490 (500-1½)	NA

NC-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-ONA	APP CRS	Rwy Idg 5199
109.35	298°	TDZE 656
Chan 30 (Y)		Apt Elev 656

LOC RWY 30

WINONA MUNI-MAX CONRAD FIELD (ONA)

ADF required. When local altimeter setting not received, use La Crosse altimeter setting and increase all MDA 60 feet and increase S-30 Cats C and D visibility ¼ mile. VDP NA when using La Crosse altimeter setting.

MALSR

MISSED APPROACH: Climb to 1600 then climbing right turn to 2700 direct BOLLN LOM/I-ONA 6 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
111.4	128.6 363.0	122.8 (CTAF) L

ALTERNATE MISSED APCH FIX VUZID

112.0 RST R-056 Chan 57

VUZID 3100 099° (12.1)

LOCALIZER 109.35 I-ONA Chan 30(Y)

WINONA 111.4 ONA Chan 51

LOM/IAF BOLLN 264 ON I-ONA 6

10 NM

1290 1560± 1626 1240± 1493 1460± 1471 1626 900 1550 2413

2400 298° (6.1)

(IF) BOCYA INT I-ONA 12.1

R-353 343° 163° 118° 298°

1636 1718 1687 1593

3100 NoPT 353° (4.4)

1723±

ONA LR-126

IAF NODINE 117.9 ODI Chan 126

MSA ON 25 NM 3500 100° 280° 3100

Procedure NA for arrivals at ODI VORTAC via airway radials 297 CW 054.

ELEV 656

733± 720± 698 712 693 737±

298° 5 NM from FAF

5199 X 98

2553 X 74

TDZE 656

35

REIL Rwy 12 L

MIRL Rwy 12-30 L

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

1600 2700 ON 264

BOLLN LOM I-ONA 6

Remain within 10 NM

118° 3100 298° 2400

I-ONA I-ONA 2.6 1

3.19° TCH 42

1.6 3.4 NM

CATEGORY	A	B	C	D
S-30	1200-½ 544 (600-½)		1200-1 544 (600-1)	1200-1¼ 544 (600-1¼)
CIRCLING	1600-1¼ 944 (1000-1¼)	1620-1½ 964 (1000-1½)	1640-3 984 (1000-3)	1840-3 1184 (1200-3)

NC-1, 03 JUN 2010 to 01 JUL 2010

LOM ON	APP CRS	Rwy Idg	5199
264	300°	TDZE	656
		Apt Elev	656

NDB RWY 30

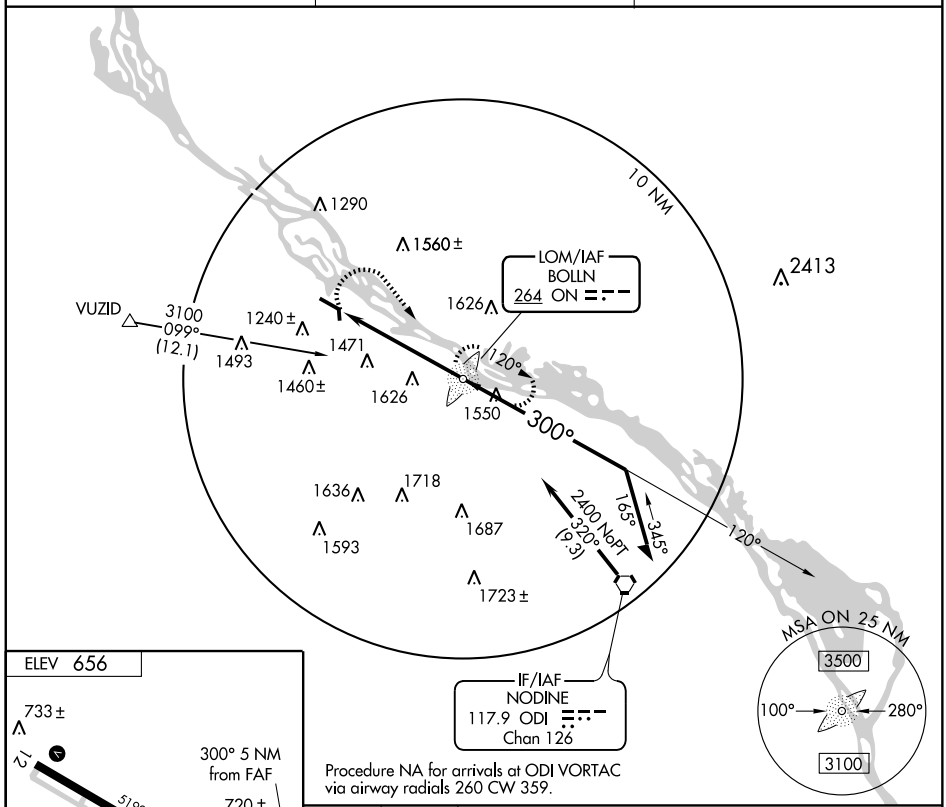
WINONA MUNI-MAX CONRAD FIELD (ONA)

▼ NA — Inoperative table does not apply to Cat A. When local altimeter setting not received, use La Crosse altimeter setting and increase all MDA 60 feet.

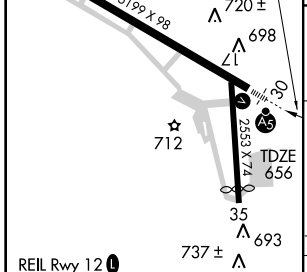
MALSR

MISSED APPROACH: Climbing right turn to 2700 direct BOLLN LOM and hold.

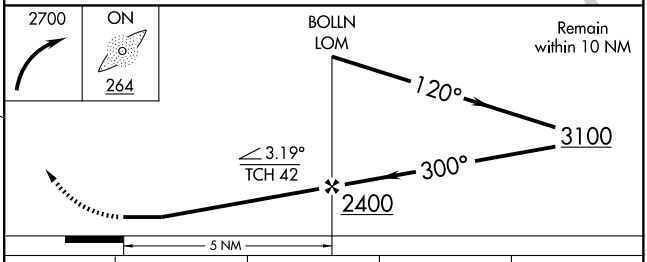
AWOS-3	MINNEAPOLIS CENTER	UNICOM
111.4	128.6 363.0	122.8 (CTAF) L



Procedure NA for arrivals at ODI VORTAC via airway radials 260 CW 359.



FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40



CATEGORY	A	B	C	D
S-30	1980-1¼ 1324 (1400-1¼)		1980-2½ 1324 (1400-2½)	1980-2¾ 1324 (1400-2¾)
CIRCLING	1980-1¼ 1324 (1400-1¼)	1980-1½ 1324 (1400-1½)	1980-3 1324 (1400-3)	

NC-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy Idg	5199
287°	TDZE	656
	Apt Elev	656

RNAV (GPS) RWY 30

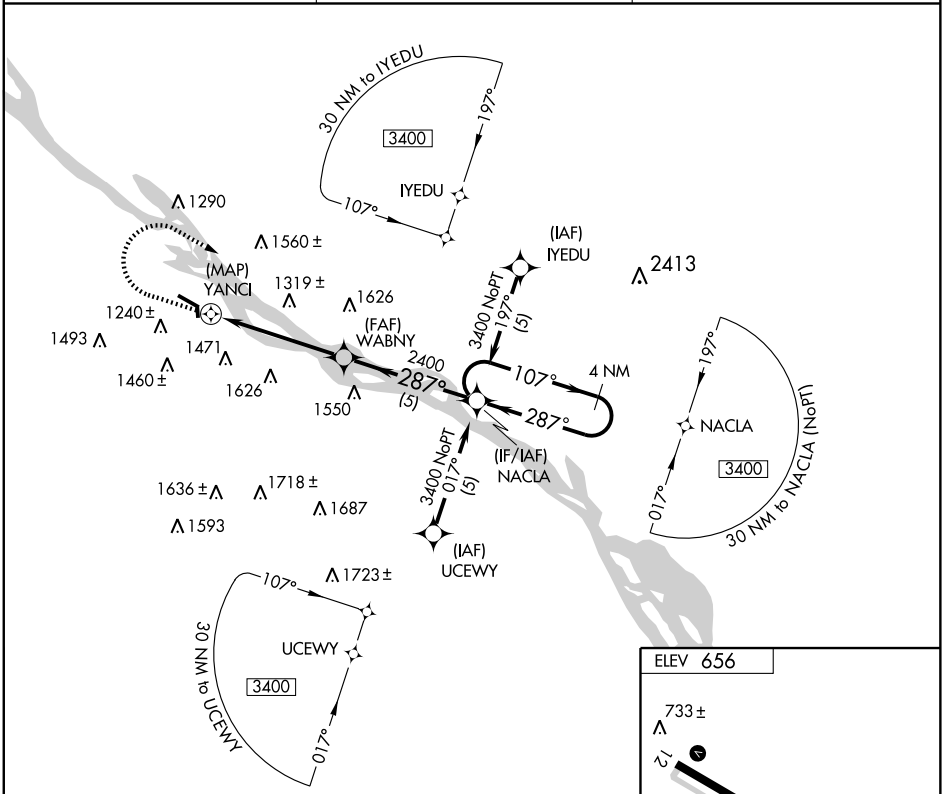
WINONA MUNI-MAX CONRAD FIELD (ONA)

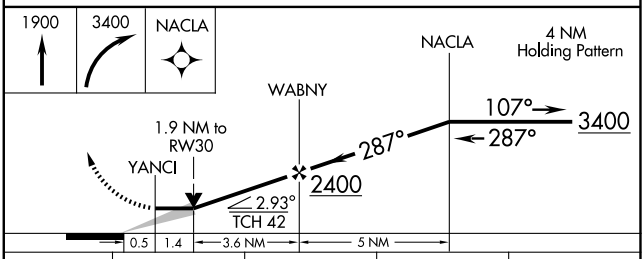
NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MALSR

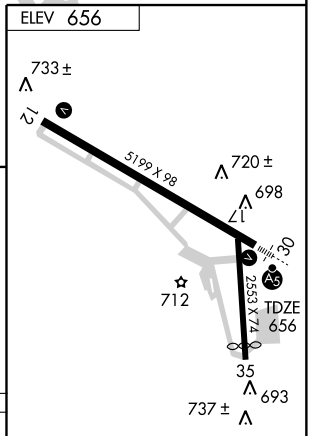
MISSED APPROACH: Climb to 1900, then climbing right turn to 3400 direct NACLA WP and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
111.4	128.6 363.0	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	1460-½ 804 (900-½)	1460-¾ 804 (900-¾)	1460-1¾ 804 (900-1¾)	1460-2 804 (900-2)
CIRCLING	1600-1¼ 944 (1000-1¼)	1620-1½ 964 (1000-1½)	1620-3 964 (1000-3)	1840-3 1184 (1200-3)



REIL Rwy 12 L

MIRL Rwy 12-30 L

NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME ONA	APP CRS	Rwy Idg	N/A
111.4	142°	TDZE	N/A
Chan 51		Apt Elev	656

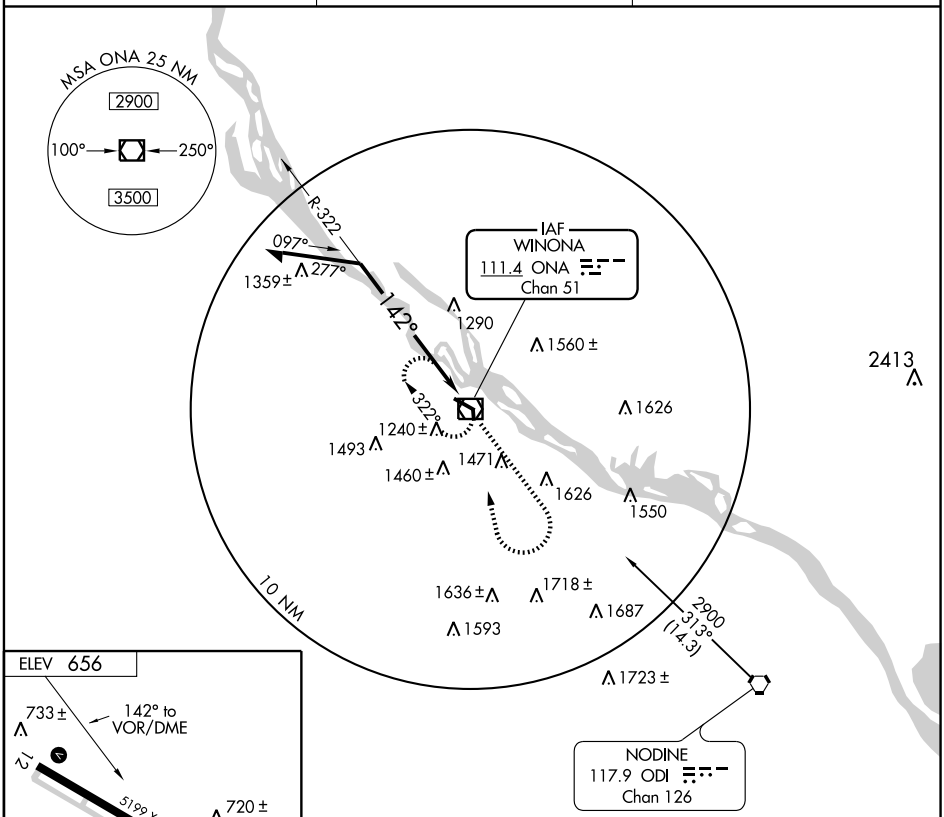
VOR-A

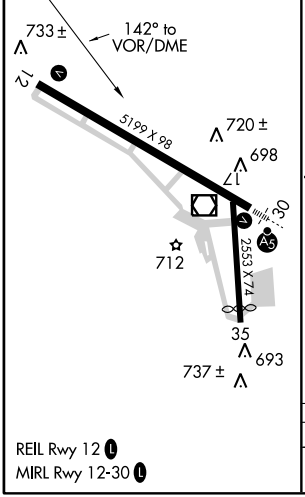
WINONA MUNI-MAX CONRAD FIELD (ONA)

NA

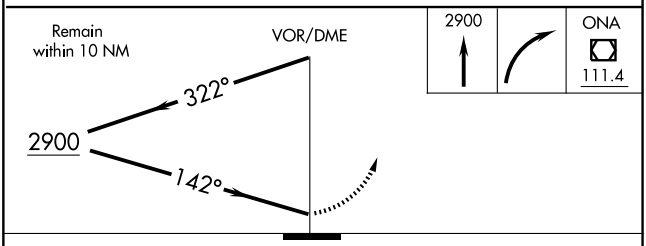
MISSED APPROACH: Climb to 2900 then right turn direct ONA VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
111.4	128.6 363.0	122.8 (CTAF) L





REIL Rwy 12 L
MIRL Rwy 12-30 L



CATEGORY	A	B	C	D
CIRCLING	1660-1¼ 1004 (1100-1¼)	1660-1½ 1004 (1100-1½)	1660-3 1004 (1100-3)	1840-3 1184 (1200-3)

NC-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME ONA	APP CRS	Rwy Idg 5199
111.4	292°	TDZE 656
Chan 51		Apt Elev 656

VOR RWY 30

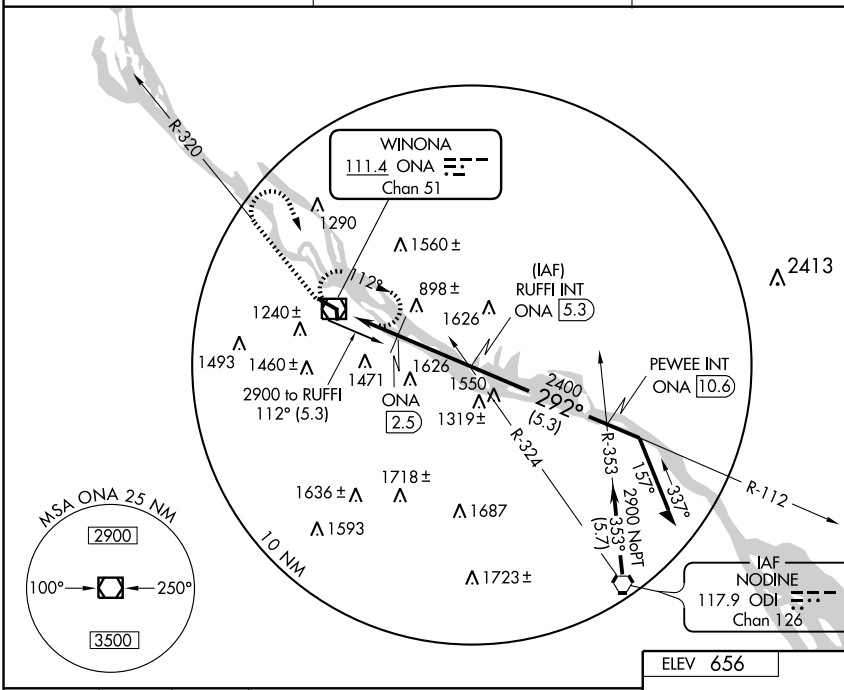
WINONA MUNI-MAX CONRAD FIELD (ONA)

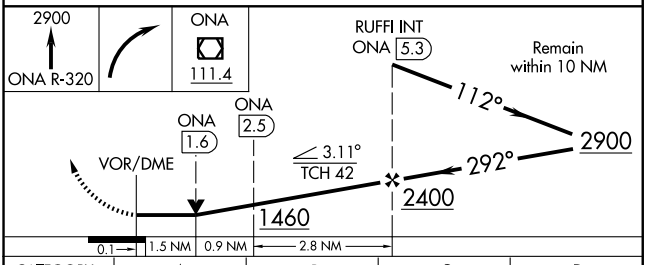
NA

MALSR

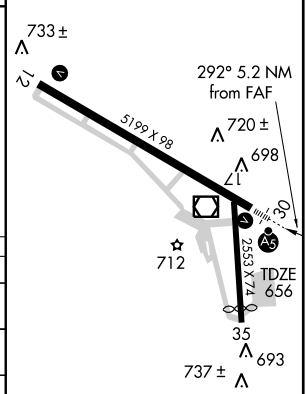
MISSED APPROACH: Climb to 2900 via ONA R-320 then right turn direct ONA VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
111.4	128.6 363.0	122.8 (CTAF) L





CATEGORY	A	B	C	D
S-30	1460-½ 804 (900-½)	1460-¾ 804 (900-¾)	1460-1¾ 804 (900-1¾)	1460-2 804 (900-2)
CIRCLING	1600-1¼ 944 (1000-1¼)	1620-1½ 964 (1000-1½)	1620-3 964 (1000-3)	1840-3 1184 (1200-3)
DME MINIMUMS				
S-30	1160-½ 504 (600-½)		1160-1 504 (600-1)	
CIRCLING	1600-1¼ 944 (1000-1¼)	1620-1½ 964 (1000-1½)	1620-3 964 (1000-3)	1840-3 1184 (1200-3)



REIL Rwy 12 L

MIRL Rwy 12-30 L

LOC I-OTG	APP CRS	Rwy Idg	5499
111.7	288°	TDZE	1570
		Apt Elev	1574

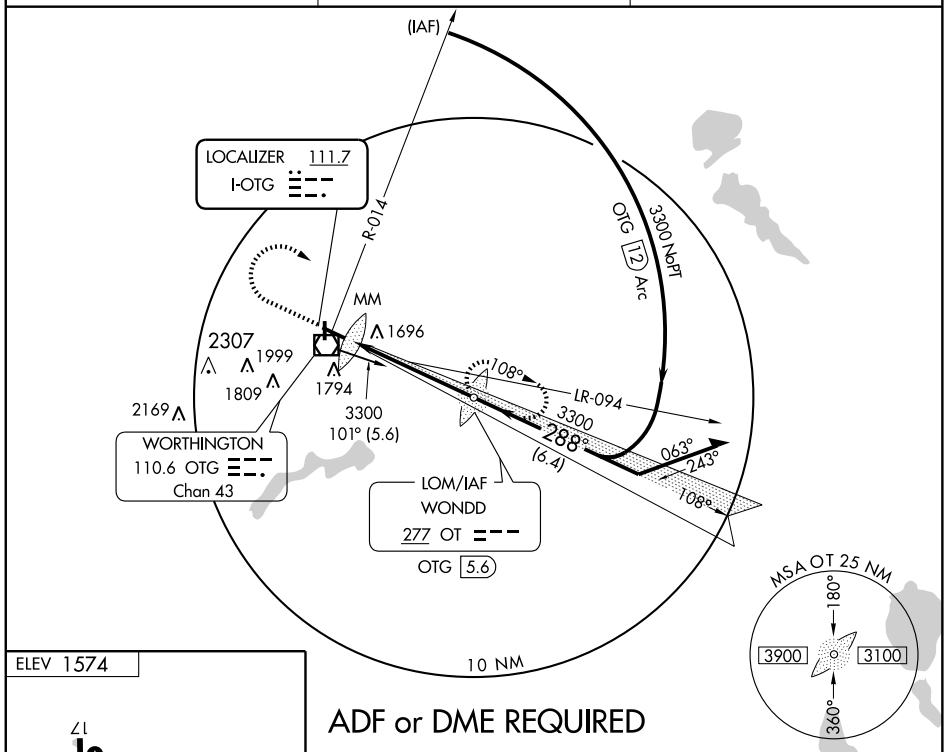
ILS RWY 29
WORTHINGTON MUNI (OTG)

T
NA

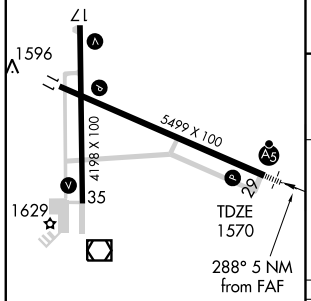
MALSR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3300 direct WONDD LOM/OTG 5.6 DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.6	132.05 317.4	122.8 (CTAF) L

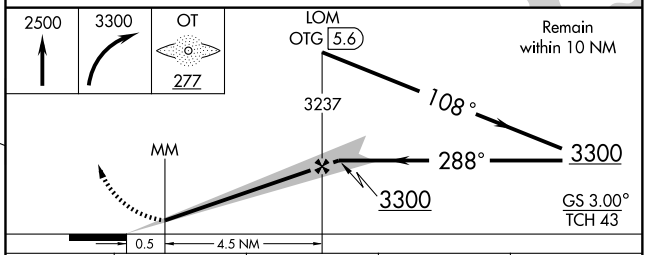


ADF or DME REQUIRED



MIRL Rwy 17-35 L
HIRL Rwy 11-29 L
REIL Rwys 11, 17, and 35 L

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40



CATEGORY	A	B	C	D
S-ILS 29	1770-½ 200 (200-½)			
S-LOC 29	1920-½ 350 (400-½)			1920-¾ 350 (400-¾)
CIRCLING	2100-1 526 (600-1)		2100-1½ 526 (600-1½)	2140-2 566 (600-2)

NC-1, 03 JUN 2010 to 01 JUL 2010

LOM OT	APP CRS	Rwy Idg	5499
277	288°	TDZE	1570
		Apt Elev	1574

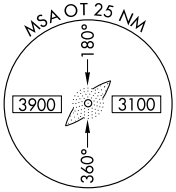
NDB or GPS RWY 29
WORTHINGTON MUNI (OTG)

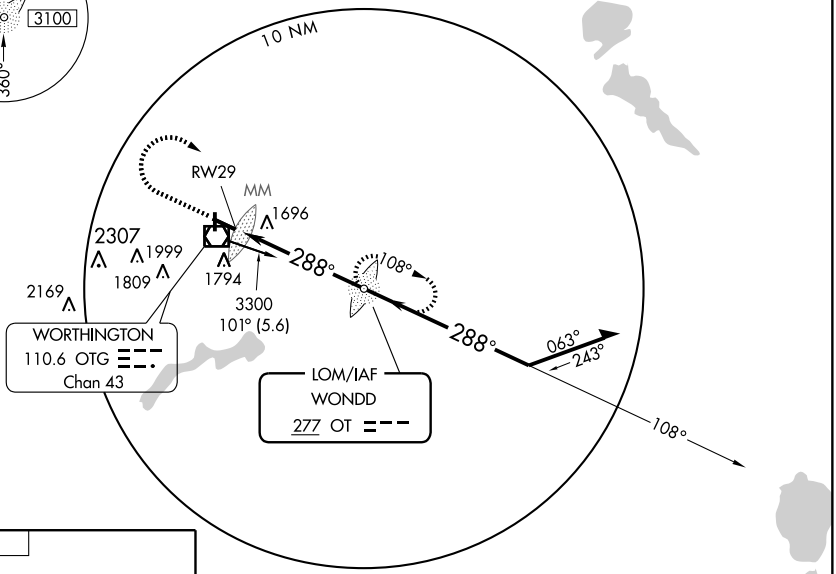
T
NA

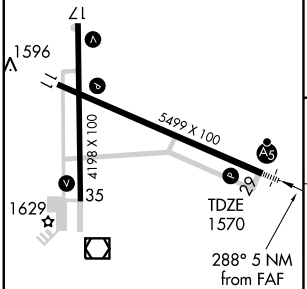
MALSR

MISSED APPROACH: Climb to 2500 then climbing right turn to 3300 direct OT LOM and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.6	132.05 317.4	122.8 (CTAF) L

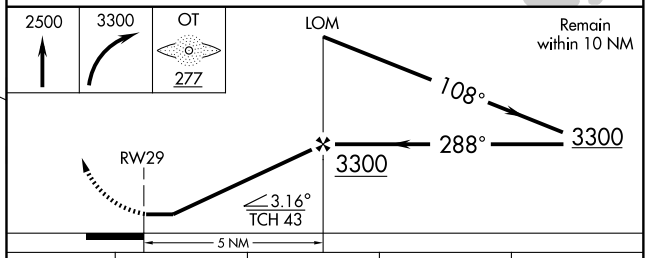






MIRL Rwy 17-35 L
HIRL Rwy 11-29 L
REIL Rwys 11, 17, and 35 L

FAF to MAP 5 NM					
Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40



CATEGORY	A	B	C	D
S-29	2100-¾ 530 (600-¾)		2100-1 530 (600-1)	2100-1½ 530 (600-1½)
CIRCLING	2100-1 526 (600-1)		2100-1½ 526 (600-1½)	2140-2 566 (600-2)

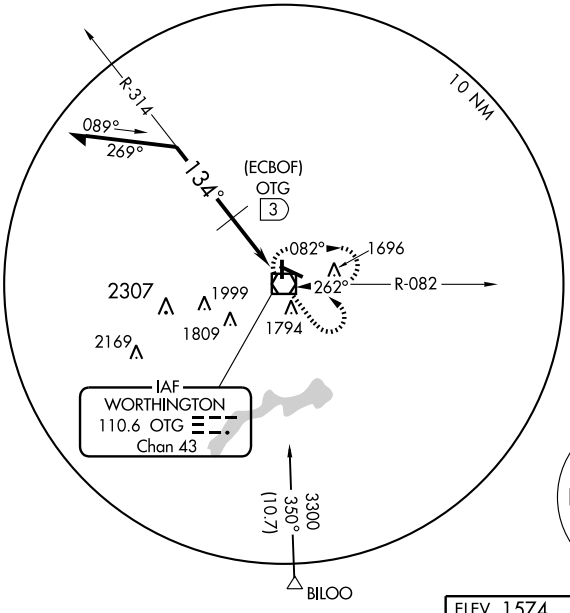
NC-1. 03 JUN 2010 to 01 JUL 2010

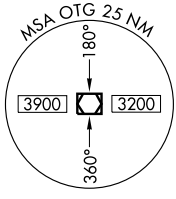
VOR/DME OTG	APP CRS	Rwy Idg	5499
110.6	134°	TDZE	1574
Chan 43		Apt Elev	1574

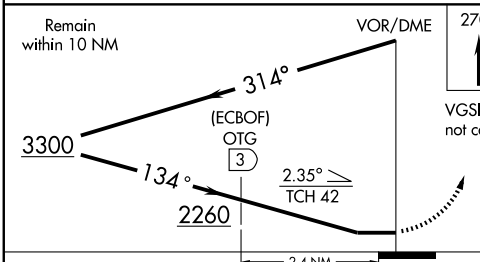
VOR or GPS RWY 11
WORTHINGTON MUNI (OTG)

MISSED APPROACH: Climb to 2700 then climbing left turn to 3300 direct to OTG VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.6	132.05 317.4	122.8 (CTAF) L

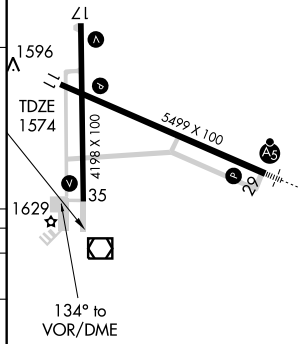






2700	3300	OTG
		110.6

VGSI and descent angles not coincident.



CATEGORY	A	B	C	D
S-11	2260-1	686 (700-1)	2260-2 686 (700-2)	2260-2¼ 686 (700-2¼)
CIRCLING	2260-1	686 (700-1)	2260-2 686 (700-2)	2260-2¼ 686 (700-2¼)
DME MINIMUMS				
S-11	2020-1	446 (500-1)	2020-1¼ 446 (500-1¼)	2020-1½ 446 (500-1½)
CIRCLING	2100-1	526 (600-1)	2100-1½ 526 (600-1½)	2140-2 566 (600-2)

MIRL Rwy 17-35 L
HIRL Rwy 11-29 L
REIL Rwys 11, 17, and 35 L

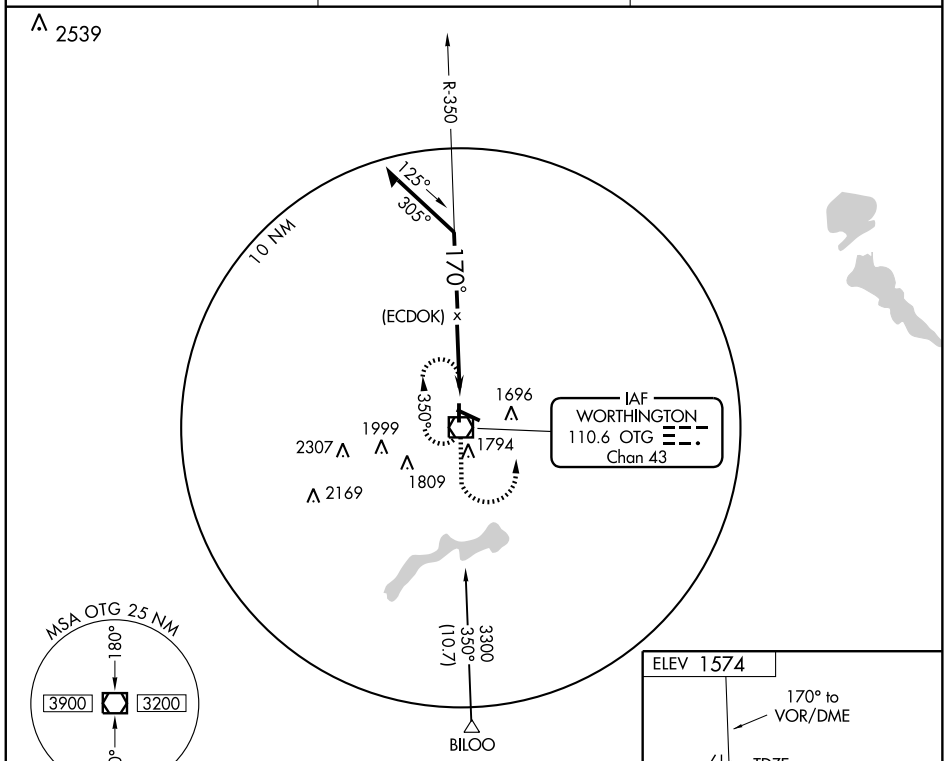
NC-1. 03 JUN 2010 to 01 JUL 2010

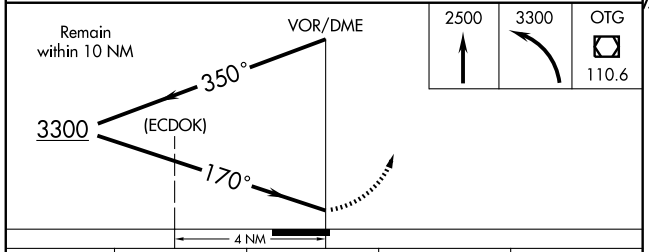
VOR/DME OTG	APP CRS	Rwy Idg	4198
110.6	170°	TDZE	1574
Chan 43		Apt Elev	1574

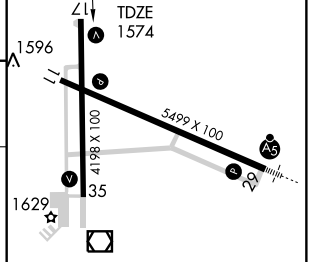
VOR or GPS RWY 17
WORTHINGTON MUNI (OTG)

MISSED APPROACH: Climb to 2500 then climbing left turn to 3300 direct OTG VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.6	132.05 317.4	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-17	2000-1	426 (500-1)	2000-1¼	426 (500-1¼)
CIRCLING	2100-1	526 (600-1)	2100-1½ 526 (600-1½)	2140-2 566 (600-2)

MIRL Rwy 17-35 L
HIRL Rwy 11-29 L
REIL Rwys 11, 17, and 35 L

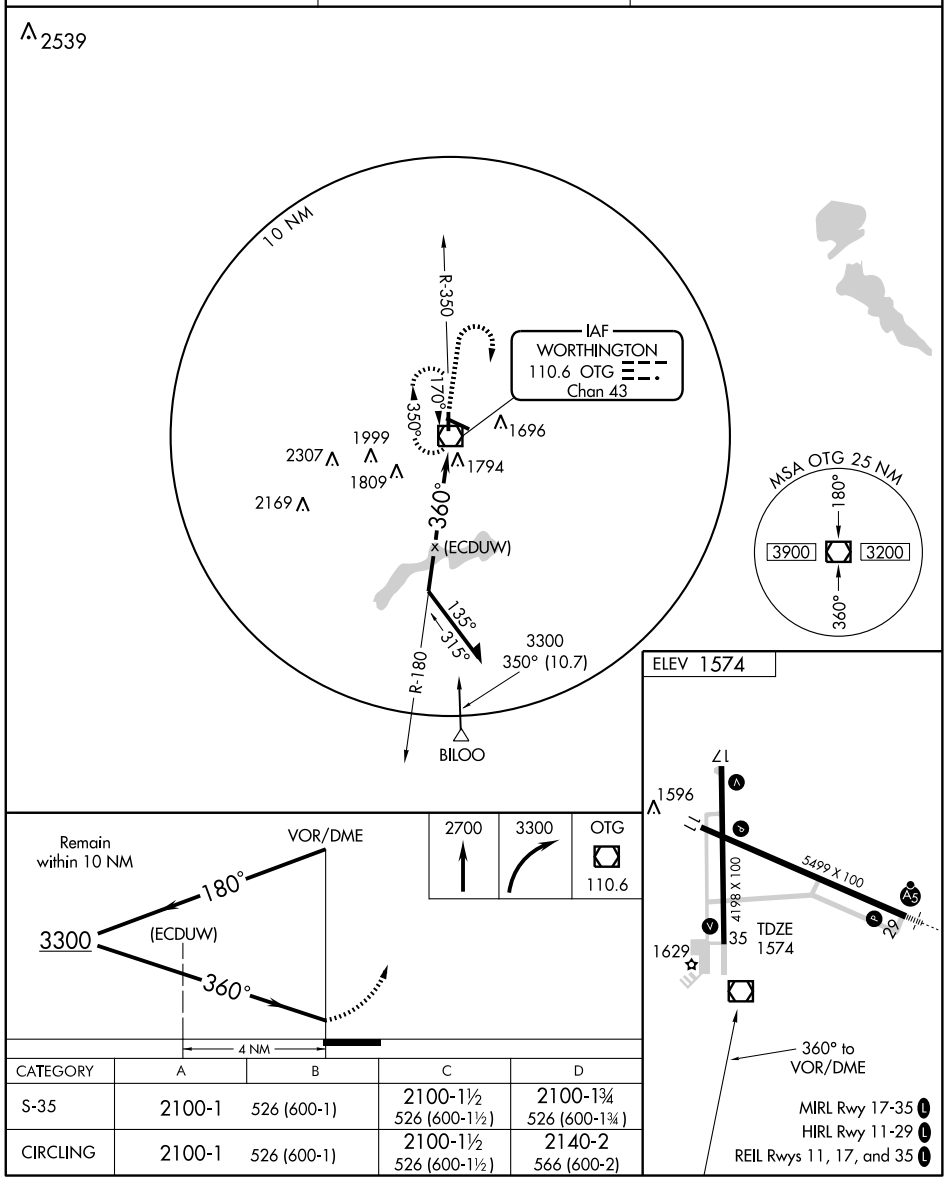
NC-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME OTG	APP CRS	Rwy Idg	4198
110.6	360°	TDZE	1574
Chan 43		Apt Elev	1574

VOR or GPS RWY 35
WORTHINGTON MUNI (OTG)

MISSED APPROACH: Climb to 2700 then climbing right turn to 3300 direct OTG VOR/DME and hold.

AWOS-3	MINNEAPOLIS CENTER	UNICOM
110.6	132.05 317.4	122.8 (CTAF) L



MIRL Rwy 17-35 L
HIRL Rwy 11-29 L
REIL Rwys 11, 17, and 35 L

CATEGORY	A	B	C	D
S-35	2100-1	526 (600-1)	2100-1½ 526 (600-1½)	2100-1¾ 526 (600-1¾)
CIRCLING	2100-1	526 (600-1)	2100-1½ 526 (600-1½)	2140-2 566 (600-2)

NC-1. 03 JUN 2010 to 01 JUL 2010